The Three Hundred and First Engineers

A HISTORY
1917-1919

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THE THREE HUNDRED AND FIRST ENGINEERS

A HISTORY

REVIEW OF THE REGIMENT BY GENERAL PERSHING

The Three Hundred and First Engineers

A HISTORY

1917-1919

With Illustrations

BOSTON AND NEW YORK
HOUGHTON MIFFLIN COMPANY
THE RIVERSIDE PRESS CAMBRIDGE
1920

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PREFACE

It is required by the War Department that all military organizations furnish a monthly report of operations. Since these are of necessity of extreme briefness it is customary to make in addition an attempt to keep a more detailed account within the organization which will furnish the War Department with historical data of a military nature.

With this in mind there has been from time to time appointed in the 301st Engineers an historical officer whose duties were to compile the necessary data for the regimental records. This information was assembled by the Topographical Office shortly after the signing of the Armistice and bound into two typewritten copies, one going to the Chief Engineer of the A.E.F., and the other to the War Department.

It was at once apparent that if this history could be revised and made into a more personal and less technical account, it would be a most valuable record for all members of the organization. It was therefore planned to publish the book from the Regimental Fund as the most fitting use to which the money could be put.

During the period as a portion of the Army of Occupation the work was pushed as rapidly as possible, and the regiment returned to the States with an almost complete work, even to the plates, which had been made in Cologne.

While there have been many officers from time to time who have given their time and thought to the work, the book is the direct result of the efforts and enthusiasm of Lieutenant-Colonel Norman Dean and those officers who have been associated with the Topographical Office.

E. J. W.

CONTENTS

Introduction xiii

PART I

CAMP DEVENS

I. First Days of the Regiment 3
II. The Several Units 11
III. Initial, Advanced, and Engineer Training 17
IV. Engineer Work 25
V. Schools 33
VI. Athletics and Amusements 37
VII. Overseas Preparation 43

PART II

OVER SEAS

I. The Advance School Detachment 49
II. At Sea 66
III. Debarkation 73
IV. In Saint-Amand, Montrond 77
V. Relinquishment of Command by Colonel Pope 86
VI. To Toul 88

PART III

IN THE LINES

I. September 12, 1918 93
II. Flirey 99
III. The First Casualties 104
IV. Review of Military Situation 108
V. The Lines of Communication 117
VI. The German Positions from German Documents and Maps 123
VII. Duties of a Corps Engineer and Corps Engineer Troops

VIII. Shelling of Headquarters and Distribution of the Second Battalion after the First Day 134
IX. The Second Battalion at Fey-en-Haye 140
X. The Duties of the First Battalion 143
XI. Return of the Second Battalion and Redistribution 151
XII. The Second Position 154
XIII. The Attack on the Fourth Corps Front and Result 162
XIV. The Three Hundred and First Engineer Train 171
Drawings of Field Works within the Saint-Mihiel Salient 177

PART IV

ARMY OF OCCUPATION

I. The March to the Rhine 191
II. Supply and Transport 205
III. Health and Sanitation 210
IV. The Topographical Office 217
V. Brohl 222
VI. Work of the Regiment 226
VII. Police and Routine Duties of Occupation 234
VIII. Schools 236
IX. Recreation and Amusements 240
X. To Saint-Nazaire and Boston 244

APPENDIX

A. Officers of the Three Hundred and First Engineers 255
B. Orders and Memoranda relating to Part I 260
C. Orders and Memoranda relating to Part II 278
D. Orders and Memoranda relating to Part III 286
E. Orders and Memoranda relating to Part IV 291
F. Letters of Commendation 297
G. List of Officers returning to the United States with the Regiment 304
H. Officers having served with the Regiment 307
I. Deaths in the A.E.F. 309

ILLUSTRATIONS

Review of the Regiment by General Pershing *Frontispiece*

"Corporal of the Guard, No. 4" xiv

The Men began to fall out xviii

On the Potomac 6

Ponton-building, Robbins Pond 8

Ponton-building, Robbins Pond 16

Ponton-building, Robbins Pond 24

Model Trenches, Engineer Area, Devens 30

Explosion of Mine in Engineer Area at Devens 34

Destroyed German Plane 40

No Man's Land from the Air 44

American Prisoners being questioned by German Officers 52

A German Pill-Box 56

Camouflaged Troopship 66

"A" Company's Castle at Colombier 76

The Roman Amphitheater at Drevant 78

Group of Officers at Drevant 82

View of Flirey — Road to Limey 84

The Cross-Roads at Flirey 88

Flirey Church 94

Bridge and Telephone Central, Flirey 98

Another View of Flirey Church 104

The Road across No Man's Land 106

Shell-Hole near Flirey 108

American Training Trench 110

Map showing Movement of American Troops at Saint-Mihiel 114

Mont Sec 116

The Church at Seicheprey 118

No Man's Land on Flirey Hill 120

Destroyed Bridge at Flirey 122

Map showing German Positions, made from German Map found on Field 124

Map showing Electrification of German Defenses and Lighting System 126

Flirey 130

Ruins of Flirey Station 132

The Town of Mont Sec 134

Essey 136

"B" Company at Saint-Baussant 138

Map showing Second Battalion Position at Fey-en-Haye 140

Seicheprey 142

Trench destroyed by Shell-Fire 144

Ruins of Saint-Baussant 144

Officers' Quarters, "B" Company, Saint-Baussant 146

The Bridge at Essey 148

The Road to Mont Sec 150

A German Tank-Trap at Bois de Sonnard 150

German Silhouettes 152

"B" Company at Saint-Baussant — The Gas Alarm 152

Heavy Trench Mortars and Ammunition left behind by Germans 154

Second Position Wire 156

An Allied Plane brought down 156

Map showing Second Position Wire erected October 18–November 8 by the 301st Engineers 158

View of Saint-Baussant 160

View of Thiaucourt 160

Map showing Location of P.C.'s in Proposed Drive on Fourth Corps Front 162

Detail View of Repairs to Bridge at Xammes 164

The Bridge at Xammes after being repaired 166

A French Cemetery in No Man's Land 168

Regimental Headquarters at Bernécourt 170

Whippet Tank near Thiaucourt destroyed by German Shell-Fire 174

Drawings of German Field Works within the Saint-Mihiel Salient 177

Ammunition-Dump at Bois de Pannes 188

A German Cemetery 188

An Air Squadron 190

Thiaucourt 192

Vigneulles — German Prison Pen 192

Thiaucourt — The Result of a Night's Shelling by the Enemy 194

Progress Map — March of Occupation 196

Facsimile of Proclamation read by Village Priest 198

The Advance Guard at the Alsace-Lorraine Frontier 200

The Regiment nearing Lommeringen 202

The Regiment on the March of Occupation 204

The Motor Transport 206

Motor Park, Brohl, with German Trucks 208

"A" Company Officers' Quarters at Viéville 208

Second Battalion Headquarters at Thiaucourt 210
Street Scene, Boppard 212
Dental Infirmary, Brohl 214
Tucquegnieux — Floral Arches 216
Regimental Headquarters, Brohl 218
The Road to Xammes (under Enemy Observation) 220
Headquarters at Bernécourt 220
German Ponton Bridge across Rhine at Brohl—German Artillery crossing 222
German Ammunition Chambers, Thiaucourt 224
"C" Company Headquarters at Viéville 226
Brohl — Street Scene 228
The Engineer Train at Brohl 230
Ponton Bridge between Carden and Treis 232
The Rhine — Brohl on Left 234
Evening Parade at Brohl 236
Mounted Section, Headquarters Detachment, Brohl 238
Bridge across the Moselle at Grevenmacher 242
Alkburg — Billet of Regimental Staff 244
The Band at Brohl 246
Map of the Occupied District of Germany 248

INTRODUCTION

To a large group of officers of the Engineers, the early days of May, 1917, at Plattsburg — damp, misty, gray days — constitute a memory, which, ineffaceable in itself, will be carried through all subsequent achievements, as the one in which the desire to serve, to offer all in their power to offer, and to do so with no other motive than the need of the service, outweighed and rendered insignificant such sacrifices — and in many cases the sacrifices were undoubtedly considerable — which entrance into the service of the United States entailed.

Looking backward retrospectively to those men of the first training camps, one cannot but realize that they availed themselves of this opportunity to enter the service at a time when governmental policies were not fully expanded, when the future was somewhat dim, and when the whole nation was splendidly willing, but just a trifle cautious.

To sever one's connection with civil life, abruptly, irrevocably, voluntarily, though the responsibility be great or little; to plunge into a world of discipline and disassociation, where one man is distinguished from another only by what he does and not by what he is; where by competition or elimination he remains or does not remain; where he is judged by the coolly impersonal judgment of an officer of the regular establishment — is a transformation through which no man passes without a change in his mental attitude and his perspective.

To him who with little effort, or to him who with difficulty but determined perseverance was able to adapt himself to the new conditions, to submerge his personal likes or dislikes and to finally prove that he was of officer material, came the spoils of success. Because of this, and a definite knowledge of the inevitable results of failure, possibly no gathering of men in the history of the country was more attentive, more eager to learn, or to lend themselves more readily to discipline. It was natural, then, that, under the able tutelage of their instructors and the effi-

ciency of the scheme of instruction, they assimilated the new teachings with avidity and a realization that they were to be transmitted to those units which they were destined, later, to command.

The engineer candidates were chosen from those having a technical education, and, where age permitted, an extensive experience in engineering. In this respect many brought with them that desirable quality, an intimate knowledge of men. Applicants were many, and the examining officers did not hesitate to refuse consideration of those mentally, morally, or physically deficient. A number of those admitted to camp already held commissions in the Officers' Reserve Corps, an organization which had originated some months before. These officers were nevertheless required to pursue the same system of training as those who entered as students.

The course of training, from its incipiency to its conclusion, was a most exacting one. Acceptance into a training camp did not, in any way, promise immunity from dismissal, for a continual "weeding-out" process was effected by constant observation and tests or by the slightest infraction of any disciplinary measure of the command. Any one demonstrating his unfitness in the slightest degree was at once returned to civil life.

Discipline was the keynote of the school; discipline in important things, discipline in the smallest detail. From the first hour it was instilled into the candidate with unrelaxing, unremitting care, until it became as a part of his being. Quoting from one of the many lectures on discipline, "It is said by noted writers of history and conceded by authorities on that subject, that the battle of Bull Run was lost before it was fought, lost because General MacDowell in his march from Washington to the battlefield could not prevent his men from falling out and eating blackberries along the line of march." Such is the psychology of discipline. It was shown to the student as being the framework upon which an army rests; the fabric of which it is composed. In later days when the engineer soldier thought perhaps that the treatment accorded him was harsh and the rulings severe, it should be understood that this was simply the application of that world-old institution which is the essential factor in deter-

"CORPORAL OF THE GUARD, NO. 4"

mining the success or failure of any troops — discipline. Unrestrained, liberal America did not at once take kindly to it, but with what astounding rapidity it did reach a state of understanding is, by its results, well known to the world to-day.

Directly after the declaration of war with the Imperial German Government, the United States found itself confronted with a situation, the enormity of which was at that time, and is even now, little appreciated except by those intimately concerned. An army was to be created which at that time only existed potentially. It was to be raised, officered, trained, and sent overseas to cope with a veteran army whose officers and men had had nearly three years of victorious battle-field experience. True enough, the levy of the draft would produce the individuals for such an army, but to train it, to make of it a self-contained, effective, developed force, capable of sustained and unified action, required officers — men who themselves must be qualified to teach. The necessarily limited officer personnel of the Regular Army had before it a task which taxed it to the utmost in officering its own units and in providing instructors for the training camps.

For the skeptic, the faint-hearted, and those who lacked faith in the national resourcefulness and ability, the visualization of successful and well-directed effort during these months should furnish an example for all time. With practically nothing as a basis upon which to begin, officers' training camps were established throughout the country; instructors were provided and the smooth-running machinery set in motion. At the same time the world's greatest system of training cantonments was begun. From the green hills of New England to the sandy mesas of New Mexico they were laid out, built and got ready for the making of the army. In an incredibly short length of time the Nation had met and adapted itself to a condition hitherto unknown. It had embarked upon a field of endeavor without precedent in our history and consistently carried it on to successful completion.

The traditions of the old frontier post of Plattsburg were quickened into life by the activities of many tradesmen and the accumulation of large piles of material. As a result of these, there arose a series of long, low barracks and auxiliary buildings, their newness contrasting strangely with the weather-beaten brick edi-

fices of a bygone day. Within the grounds and in the vicinity had been conducted the Citizens' Training Camps for the past two years. They were in the nature of an experiment, the first of the kind which had been productive of satisfactory results and promised continued future success. Many of the men now assembling had attended these courses one or two years and found themselves in familiar surroundings.

Simultaneously with the completion of the buildings, there arrived by train and machine the men who were the recipients of brief little cards apprising them that their eligibility was such as to warrant entry into camp "with a view to obtaining a commission." Any one coming to camp with the impression that there was a highroad to the end was quickly disillusioned. Many of those arriving earlier were already at work, carrying supplies, cleaning, and performing other tasks of similar utility. As each reported, he was assigned, given a bed, and fitted and clad in a soldier's uniform. He then formed in line and drew bedclothes and mess kits, after which there was usually an accelerated movement toward the barracks; in one instance a thoughtful Yale professor of psychology vying with a well-known Boston attorney to secure the most favorable location; this to the great discomfiture of a grave and dignified artist who returned to find his choice preëmpted.

At the very start, one particular party, numbering several dozen, learned that it was not accorded the privileges of the civilian. The members had been traveling the greater part of the night and had arrived in the morning about breakfast-time. Seeing a large number eating and crowding about a mess hall, they joined them and waited for an opportunity to get some food. After a considerable wait, a busy individual strode in, mounted a bench, and nonchalantly announced, "I am the mess officer. I have been instructed to prepare food for eight hundred men. I have already fed twelve hundred. The next meal will be at five-thirty this evening."

Each barrack contained a company averaging 200 men, in command of an officer of the Regular Army, who was also instructor. The instruction for the first month was the same for all arms of the service, the separation of the arms taking place at a

later time. This also applied to the engineers, but the status of these units was different from all the others, in that practically every man was technically trained and it was understood that all members would be commissioned in the Engineer Corps.

The unit being primarily a New England one, the candidates were from those Eastern States, but the State of New York, the Middle West, and even California were represented. It was known as the 15th New England Company, First Provisional Training Regiment.

The first stage of training was that of infantry drill, which drill is the basis of all drills. To be a soldier is the first requisite of an officer and the principal means of becoming one is by infantry drill; the engineer officer and soldier must be as thoroughly grounded in this as the infantryman.

The tramp of the candidate's feet in mud and rain, in wind and sun, soon became familiar to the fields and roads of the vicinity; ceaseless drill, repeated again and again, rapidly made evident its worth. With the men worked the instructor, harder if possible, for his duties were endless. In the morning the company began its long day at an early reveille; it attended the reveille formation, dressed, washed, shaved, made the beds, swept out the barracks, cleaned up the grounds, then had breakfast. A stiff infantry drill began the drills; then the use of equipment, the new bayonet drill, more infantry drill, problems in tactics, practice in giving commands, and then infantry drill. In the afternoon a repetition of this and in the evening study and memorizing, then loss of consciousness till the echoes of reveille spread over the cold waters of Lake Champlain.

This was varied in the schedule by hikes, inspections, special formations, lectures, and written tests Saturday morning. With permission, leave was granted Saturday afternoon or Sunday with a check roll-call at Taps to identify immediately the absentees. And so the days passed until the schedule was completed. At this time the company was given orders to proceed to Washington, D.C., to enter into a period of engineer training.

A rapid, agreeable trip ended in the Union Station at the Nation's capital, where a camp had been established in the unused grounds of the American University. At the camp was taught

the elements of military engineering, but infantry drill still continued to be part of the daily routine. The Engineer Field Manual and a quantity of other texts were distributed, to be studied and digested in conference. Many of the study periods and conferences were held on a beautiful, tree-covered slope known as "The Grove." Here also General Kuhn and other authorities lectured on various subjects connected with the training.

Gear, tackle, knots, shears, tripods, and timbers all had to be learned with their military uses. Sufficient time was devoted to wooden bridge construction to show its applicability. It should be borne in mind that it was the military application of what the erstwhile civilian already knew that was taught; it was not proposed to teach the subject of engineering or construction.

As he progressed, the candidate learned trench construction and what was then known of trench warfare. He worked, swung the pick, and accustomed his hands to the shovel handle; one day one man had charge of a piece of work and the next day another man; in this way all were given an opportunity to direct. Many subjects were covered; a particularly interesting feature was military reconnaissance taken up in practice and theory. Road-building still further developed the prospective officer's pick-and-shovel propensities. In general, the student did just what the soldier would be called upon to do; when he drilled for hours in the sun, he knew how it felt; when he walked post on guard in the rain, he could regard it as could the soldier; when he dug trenches, he was given an idea of what to expect from the men; when he was inspected, criticized, and made to forfeit leave and clean equipment, he could realize what it meant; and when he marched fifty minutes with a full pack on his back, he learned just how welcome the ten-minute rest was.

Throughout the course, from time to time as the needs of the service developed, requests were made for men of certain qualifications. In this way many were ordered to active duty overseas in harbor-building, railroad construction, and similar work. A few were assigned to the 6th Engineers; still others to construction, forestry, and inspection duty in the United States. At least two of Spanish-speaking ability were sent to Panama and the Philippines.

THE MEN BEGAN TO FALL OUT

It was pointed out to the student that much of the good to be had from the drills, exercises, and lectures was that which he himself must delve out. If he depended solely upon what was taught, the benefit derived would be the minimum. He must bear constantly in mind that his comprehension of the subjects should be of such a nature as to enable him, not merely to know them, but to be able to place them concisely and clearly before the absolutely uninitiated.

Engineer officers are required to be able to ride. The instruction in equitation extended over several days and embraced care of the animal and equipment. Some riders were able to satisfy the instructors the first day; others, who had never been mounted before, encountered considerable difficulty. At this time also was shown the use of the *aparejo*, the diamond hitch, and pack-animal gear. In this, the instructors were Regular Army sergeants, the work being purely of a practical nature. Some rapid marches with full equipment concluded this phase of training, and the company, with the 15th New York Company, were ordered to Belvoir, Virginia, thirty miles south.

The day of departure was a hot, breezeless day in July. The two companies, with some units of the 6th Engineers, formed the column; each man carried his full equipment and rations. Five miles from camp the column reached the tree-lined streets of the city. Instructions had been previously given that a review by the Secretary of War and General Black would take place at the Army and Navy Building. On approaching the vicinity, it was seen that a large crowd had collected on the occasion of the first review of candidates. A generous cheer rose as the change from column of squads to platoon front was executed and the ranks passed the reviewing stand at rigid attention. A few minutes later, many good-natured gibes and prophecies as to the progress of the march under full packs could be heard from various facetious onlookers.

Attended by the clamorous crowd and the admiration of the small boy, the column passed through the city and parks and halted for a ten-minute rest on the outskirts. After this refreshing stop, the march was resumed across the bridge which connects the District of Columbia and Virginia. With the approach

of noon, the discomforts of the march began to manifest themselves in sore feet and heated bodies. The noon halt and a hasty lunch which each marcher carried in his pack were most opportune; a passing wagon laden with watermelons found a ready market for the entire load.

The afternoon and the increased heat and clouds of dust caused the hearty singing of the morning to dwindle to snatches of song by the sturdier singers. By this time all felt that this march promised more in the way of campaign conditions than had been expected, which feeling was augmented when several exhausted men were forced to fall out. The entry of the troops into quaint, quiet, old Alexandria caused an unwonted stir among its population, who filled the windows and porches until the last olive-drab figure had passed.

Descending into a green valley, a great sigh of relief passed down the column when the order to bivouac for the night was given. Seventeen long miles were behind. Pup tents were pitched, fires lighted, and water carried up, after which each man began the preparation of his evening meal of fat bacon, coffee, and hardtack. A few busy minutes getting ready for the night and caring for blistered feet and the silence of weariness settled with the darkness over the bivouac.

Reveille — the clear, ringing notes of the call spread through the valley and started the sleepers into action. The second day, however, saw a great change; sore, stiff limbs, and aching feet. A breakfast which was a repetition of supper, packs made up, and then — dust and sun and frequent drinks from the canteen.

By nine o'clock the pack-straps had settled back into the sore spots of the day before. Every once in a while a marching song would steady the pace and the miles were slowly left behind. Eleven o'clock saw the companies enshrouded in a cloud of dust lifted by the marching feet; it settled over the clothing and caked on the perspiration-soaked leggins. From this time on the men began to fall out, not, however, without a struggle. Of these the greater number were men from regular companies. It was known that camp would be reached early that day, hence no lunch was carried; this gave rise to many questions and conjectures as to how many miles still remained.

Each ten-minute rest represented an escape from the pressure of the pack — that persistent, lifeless, clinging burden which increased in weight with every mile. A patch of thorns or a field of poison ivy took the form of an oasis and no time was lost in removing the weight from blistered feet. Often at the end of the ten-minute rest, a man, too weary or footsore to continue, would remain behind to hobble in afterward.

At last the head of the column swung into a dirt road through the woods and a wondering passer-by vouchsafed the information that camp was only three miles distant. No songs and but few feeble jokes were heard now — just one thought was dominant, to keep plodding ahead over the white, winding line that stretched endlessly out ahead. Over a hill, across a stream, another hill, and then, the familiar low buildings of a camp. The column had arrived.

Belvoir Tract, now Camp A. A. Humphrey, was at that time in its pioneer stage. It is located in the thick woods on the banks of the Potomac and away from all towns. At this camp students were given their final training. It is most favorable for engineer drill because of the advantages of the river and the quantity of standing timber. An excellent rifle range had already been constructed.

New texts were distributed, study hours allotted, and a schedule prepared. Corduroy-road repairing, spar bridges, and culvert construction occupied the first days; then came tunnels and timbering. The work and discussions in explosives and demolitions were of more than average interest. The drill on the river was excellent; pontons, light and heavy, were built and dismantled with great rapidity. The current of the stream and the effect of the tide developed many points in the placing of the anchors and adjustment of the shore bents. Boat drills in prescribed formations were carried to the opposite shores.

A pile landing-stage had been partly built, previously; this work continued, providing instruction in pile-driving and use of the driver plant. The intricacies of barbed-wire entanglements and the making of gabions, fascines, and hurdle work formed a part of many days' work. Infantry drill was wedged into the day and Saturday inspection came as regularly as did the day.

Every one had to qualify in swimming — a most agreeable duty, to some at least, even though the water was warm and muddy. Firing on the rifle range had been completed and pistol practice was well under way.

And now began the anxious, restless days preceding the end. Though the majority felt reasonably sure of a commission, there was always the factor of chance. Would the months of study, of effort, and striving be in vain? Was it possible that the work-burdened instructor had overlooked the qualifications of some deserving ones in judging the aggregate? Before long the answer would be known; slowly the days dragged on.

Because of the isolated location, there had been very little chance for week-ends, though a few lucky ones did occasionally take a trip to Washington. A very pleasant journey was up the Potomac on the little Government steamer Pontonier; an amusement park across the river and a rare chance to see Mount Vernon were the only other diversions.

One day a bulletin was posted requesting that each one express a preference for the particular branch of the Engineers he desired. This would give specialty men an opportunity to follow their chosen calling; as a matter of fact, the candidates were assigned where most needed.

Finally the morning of the eventful day arrived. The company was formed in column of files, and as the name of the candidate was called, he reported at another building where he received an extract of the order appointing him an officer, after which he was sworn in. The smiles of the newly made officers betokened their feelings as they emerged from the doorway.

It was over; hopes and fears had been realized. In after days under the leaden skies of France the toils and privations of the training period were as nothing, but thoughts of these days called forth a flood of memories which, with the friendships made, will endure everlastingly. A last inspection, and all equipment and property was turned in except such articles of uniform as it was desired to purchase, and after the receiving of orders of assignment to organizations, all were free to go. But few days of leave were granted between the end of camp and the date when each must report to his future regiment, and there was much to

be done in the way of concluding business affairs and making other necessary arrangements. By boat and machine and truck, candidate and baggage deserted the scene of his recent labors to spend his short term of rest at home.

In this brief period it was attempted to embrace a field of such extent as ordinarily would have had devoted to it months, and perhaps years, of constant study and thought. From the mass of complicated detail, obsolete methods, idealistic tendencies, and conflicting trends of reasoning, there were separated and taught those salient features and essential elements, which, in conjunction with common sense, formed the working basis of the future officer's military knowledge. He was shown how mastery of the principles and application of the means are within the power of any who think and work; above all, it was sought to impress upon him a sense of the responsibility of an officer in modern war; that he is the thinker, the schemer, the source of action of his command. He it is to whom his men turn at all times, particularly at critical times, when there is need for rapid decision. Success in battle to-day is accomplished by thought — not set rules; by thinkers — not by followers of precedent. Principles and rules may well be used as guides, but not as plans of action; these must be evolved from trained minds and natural initiative.

And thus through the months were accepted, prepared, and commissioned the personnel which met the civilian recruit upon the eve of his military career and toiled faithfully, diligently, and unselfishly to make of him a soldier of the Army of the United States. Their names will not only be found with the 301st Engineers, but they will appear on the roster of those units which fought in Flanders, in the Champagne, at Château-Thierry, the Saint-Mihiel Salient, the Argonne and the Meuse, and where, with the same spirit which has given to history the splendid memories and traditions of the Corps of Engineers, some have made that greatest sacrifice which man can make for mankind.

THE THREE HUNDRED AND FIRST ENGINEERS

PART I

The Three Hundred and First Engineers

PART I

CHAPTER I

FIRST DAYS OF THE REGIMENT

WITH the vast quantity of material made available by the conscription law, and all its accompanying possibilities, it would seem at first glance that the problem of producing an army were not difficult of solution, but, unparalleled in magnitude as was the assembling of the men of the draft, yet it must be considered as but one of the phases in the process of attaining a state of national preparedness. The requirements of modern warfare demand high standards, and the marked degree of present-day specialization has greatly added to the intricacies of the period of training. The soldier of to-day must be fitted mentally and physically for his tasks; the day of gathering together a multitude of men and hastily putting them through a rudimentary instruction period has long since gone the way of the muzzle-loader and the smooth-bore cannon. The soldier must be such that up to the last moment he is an effective, otherwise he is dead wood and a burden to the Government. When it resolves itself to a question of requiring two men behind the lines to maintain one man at the front, or 2,000,000 men to maintain 1,000,000, there must be no mistake in the quality of the one man. As a result of this effort to sift out men fitted for combat service, the constant movement in assigning and reassigning the recruit, the elimination of undesirables, and the ultimate disposition of the individual made the National Army Cantonments never-ending sources of adjustments of the great polyglot population which was about to leave behind its civil and ancestral characteristics and be remade along other lines.

Of the various arms of the service, there is none, perhaps, which requires greater care in the selection of its personnel than that particular kind of engineer unit known as the sapper, where the organization should be made up largely of tradesmen and men fitted for certain classes of work. Experience in Europe has demonstrated that the scope of the engineers has undergone a great expansion and in the present war embraces fields of action practically unknown in the past. The training of the engineer soldier has broadened in character as has his value in the field increased, so that individual ability in this arm is paramount. Though any normal man can assimilate a certain amount of training and eventually be of use, he cannot compare with the man who brings into the service a training which merely requires military adaptation. This, in the preparation of an engineer regiment in a limited time, is an important factor.

Such a regiment is the 301st, which began to exist, actually, when, in compliance with orders of assignment, the first officers reported for duty at Camp Devens. As they detrained at Ayer, Massachusetts, they found a town transformed.

The sleepy, unimportant junction point on the Boston and Maine Railroad, thirty-three miles from Boston, had, by the magic order from the War Department, become a place of importance, for it had been decreed that Ayer, Massachusetts, was to be the site of one of the big National Army Cantonments. This was only one of sixteen similar cantonments distributed throughout the country at vantage-points for the concentration and training of troops from all States of the Union. The site for Camp Devens had been particularly well chosen. Located in the most beautiful section of the hill country of northeastern Massachusetts, overlooking the Nashua River, its dry climate, due to high elevation, sandy soil, and pure water supply, had shown it favored by nature. Central to the territory from which it would later draw troops, with excellent railroad facilities of great importance, Ayer being the junction point for two main lines of the Boston and Maine Railroad, one from Boston through Fitchburg and northwestern New England, the other a trunk line from New York to eastern and northern New England, seemingly man and nature had combined to make an

ideal site for a cantonment. Only one objection had been raised against Camp Devens; that was the severity of the winter climate which would seriously affect the training and produce disease and suffering. Time proved that training was not greatly handicapped; as for disease, Camp Devens's record of having the best health report of any National Army Cantonment disproved it.

There was no mistaking the way to the camp from the village of Ayer; a steady stream of construction trucks and autos was coming and going along the highway which led to the entrance or "Main Gate" as it was called. There one had his first sight of Camp Devens. American industry, backed by the resources and wealth of the American Government, had created a city for soldiers in less than three months. Everywhere was great activity, for the camp was not completed. Eight thousand men were still on the pay-rolls of Fred T. Ley & Co.; carpenters rushing construction on additional barracks required by a change in the Government plans to provide accommodation for 40,000 men instead of 30,000; road-builders paving the main highways through the camp; gangs finishing construction on sewers and water-supply systems; and all the great variety of miscellaneous work necessary to the completion of the camp. From the main gate the road wound up a narrow valley into the heart of the cantonment.

Could one have attained a sufficient elevation at this point, he would have seen before him the whole area of approximately two square miles covered by the cantonment buildings, all laid out roughly in the shape of a mammoth wheel. Directly underneath, at the hub, was the parade ground, then covered by temporary shelters for workmen; to the north, like a spoke in the wheel, lay the road leading back to the main gate; west of this road in the perimeter of the wheel were the barracks to be occupied by machine-gun battalions; to the northwest, Division Headquarters; directly west, Infantry Hill with its thickly clustered barracks of the 301st, 302d, 303d and 304th Infantry, while farther back on the hill were the barracks of the future Dépôt Brigade and the buildings of the big cantonment hospital. To the south and near the hub was a separate group sheltered

behind a projecting ridge from Infantry Hill. These were assigned to the 301st Engineers.

Swinging to the east, the hills flattened out into a broad level plain on which were the 301st, 302d, and 303d Artillery Regiments and Ammunition Train. Farther to the east in the background could be seen lined up the immense Quartermaster warehouses and sidings branching from the Boston and Maine line through Worcester. This whole widely spread cantonment had a complete system of roads radiating from the main artery through the entrance out to the rim of the wheel, a broad highway completely encircling the area.

All these main roads were to be paved to withstand heavy traffic. From them branched the regimental streets in each regimental group. The plan of all these regimental groups was practically the same. The streets were lined with two-story barracks, each accommodating about 175 men, with orderly room and mess hall on the first floor, and kitchen in an annex in the rear. A regimental hospital of the two-story type, small single-story headquarters building, officers' quarters and officers' mess hall were grouped at one end of the regimental street, with storehouses of the same type at the other end.

Just south of the barracks and on a hill were the stables and corrals. As soon as possible after the draft began to arrive, stable sergeants were made and organizations built up. Blacksmithing, horseshoeing, and care of animals and transportation were taught. There was much work to be done in the stable colony in the way of drainage, road-making, picket lines, corral fences, and grading, a portion of which was done by prisoners. These offenders had opportunity to ponder over their misdemeanors while working during some very cold, windy weather, though this applied to the soldiers drilling or on engineer work as well.

Surrounding the stable area was much standing timber and brush. For an engineer unit this was fortunate for the round timber and revetment material available. Later the drill in spar bridge work was carried on here and the soldiers acquired a knowledge of the use of the axe, adze, and machete.

The Engineer Area was particularly well located; the Post-Office, Soldiers' Club, and Y.M.C.A. Auditorium and the the-

ON THE POTOMAC

aters being close at hand. Near by was Robbins Pond, which later was used for ponton drill; and not very far away also was located the model trench system developed by the engineers. The regiment had a bayonet and a hand-grenade field and also a large drill field near by. The barracks consisted of a fine set of buildings, including men's quarters, officer's quarters, supply houses, stables, infirmary, and Regimental Headquarters. The latrines were of the best, and contained very good bathing and washing facilities, having shower baths with hot and cold water.

The officers, after reporting to the Camp Adjutant, were temporarily quartered in one of the Ammunition Train barracks, and in a day or two occupied the new officers' quarters in the Engineer Area. Many of the officers who at that time were attached to the regiment and for whom it will always have a feeling of close attachment, have since left, some to old Regular Army outfits, some to the National Army organizations and specialized regiments, where they all "have reached their objectives" and have shared pleasure and hardship.

On the second day they were assembled to meet their commanding officer, Colonel Pope, and the second in command, Lieutenant-Colonel Downing, both Regular Army officers. Colonel Pope, a man of mature years, impressed one as the type of officer and gentleman under whom it would be desirable to serve, one who felt the responsibilities of his office, in whom could be felt a confidence of wise and sympathetic leadership. In his brief talk he reminded his hearers of their responsibilities and duties as leaders and instructors, the more important in the National Army, which would not have the background of the old army ideals and traditions, or the assistance of a long-established system. The 301st Engineers must be built of itself.

While awaiting the arrival of the first contingent of the draft, time was spent in preparing for new duties. Regimental and battalion staffs were organized and company officers assigned as shown in Appendix A. In the majority of the companies the work was divided into administration, mess, supply, discipline, and quarters, with a lieutenant in charge of each. The new organization of an engineer regiment was to go into effect. This gave an increase in the maximum of company personnel from

4 officers and 164 men to 6 officers and 250 men. During this time about 35 enlisted men, N.C.O.'s and privates, were transferred to the Regiment from Regular Army organizations, mostly from the 6th Engineers, and were assigned to the several companies. They were the nucleus of the company organizations. Some were later transferred out of the regiment, some became successful candidates for commissions, and a few remained with the regiment, reaching the highest grade in non-commissioned officers.

Colonel Pope and Lieutenant-Colonel Downing gave several talks, at get-together-meetings, explaining the customs of the service and the tradition of the Engineer Corps. Above all else they emphasized the necessity for discipline, absolutely indispensable in the Army. An organization was judged by its discipline. Colonel Pope's duties as Divisional Engineer required much of his time, so that a large part of the active administration was left to Lieutenant-Colonel Downing. The Colonel, however, was never so occupied but what the welfare of the regiment was his first thought.

On a sultry afternoon in the early part of September, the 5th to be exact, an unusual number of passengers, all young men, could be seen alighting from trains arriving at Ayer Junction from all directions. Closer observation showed them ticketed and formed into small groups, each with a leader. A number of army officers seemed particularly interested in their arrival. After much questioning and directing by these officers, they were formed in a ragged column and marched away toward Camp Devens. These young men were the much-heralded quota of the draft, the first five per cent. Coming from all New England States, they were for convenience distributed to the regiments of the 76th, by States; all or part of a State's quota reported to a certain regiment. The 301st drew the quota from Rhode Island, about 150 men, all assigned to Company D, and given over to instruction by Captain Waldron. Now began the initiation of the new recruit into the U.S. Army.

First, a physical examination. A cardinal rule in the Army was that no recruit would be permitted to occupy his company barracks without first having an examination to detect any in-

PONTON-BUILDING, ROBBINS POND

fectious or contagious disease. Any cases found were immediately quarantined. Captain Greene, in charge of the Medical Department, always carried out rules to the letter. He always kept a watchful eye on the health of the regiment throughout his association with it, which lasted until after the regiment reached France. His professional skill, combined with a human sympathetic interest in the men, produced a highly efficient medical department and gained for himself the respect and well-wishes of all who knew him.

The recruit, having passed his physical examination, was next taken before an examining board of officers in charge of Captain Moore, who obtained data for his Service Record and Qualification Card. The card was something new in the service, a system already known to Captain Moore, while a professor in Civil Engineering at the Massachusetts Institute of Technology. On it was recorded the previous trades or occupations of the soldier classified according to skill; namely, apprentice, journeyman, expert; with other information, such as his preference, of any branch of service, religious preference, and general abilities. Properly recorded and classified, the recruit was returned to his company, there to be given a cot in the barracks, issued clothing and blankets, allowed a breathing-spell to become more at ease in a uniform and pronounced ready for training as a soldier.

This preliminary work had to be done by every regiment of the Division, as the first quotas in September were assigned directly. Later, the Dépôt Brigade received all recruits, made out their records, equipped them, gave them a little training in close order-infantry drill, and transferred them to organizations as ordered. The second call of the draft brought more men to Camp Devens, arriving September 19. As before, all Rhode Island's quota, approximately 900, were assigned to the 301st. They were distributed to the six companies and the Engineer Train, giving each company a strength of about 170 men.

Thus the 301st became a Rhode Island regiment, and has always retained that distinction. Later transfers and replacements brought men from all Eastern States into the regiment, but the majority from any one state were Rhode Islanders. The

September transfers to adjust and redistribute men throughout the cantonment were ordered by Division Headquarters, whereby the regiment lost about 400 men, and gained slightly more. By the middle of October, every company organization of the 301st was near its maximum strength, and the training as a military unit was in full swing.

CHAPTER II

THE SEVERAL UNITS

The barracks of the two battalions were separated by a street running their length, the companies occupying the buildings in succession on either side, A, B, and C, and D, E, and F. Behind "C" Company was the Train; behind "F" Company, the Topographical Office, the Guard House, and the regimental storehouses. The 405th Dépôt Detachment moved its quarters finally to a building next to the Y.M.C.A. Hut. Later, when the companies were filled to 250 men, overflow barracks were built on each side of the main lines of barracks, one half a barrack for the overflow of each company. As the orderly rooms and supply rooms were originally small, it was necessary to enlarge them, which work was done from time to time without interference with other work. There was much grading and leveling of the ground surrounding the buildings to be done in order to secure squad drill and parade grounds.

It became necessary for the Division to allot specified main drill grounds for each unit. That given the engineers was through the main gate on a flat field known as "Cavalry Flats." The regimental athletic field was used for ceremonies when the ground was not wet until the higher ground next to it had been cleared of trees and leveled. This made an excellent field for either drill or ceremonies; here evening parade and physical exercise were held.

The Executive Offices of the regiment were located at Regimental Headquarters, a one-story building about seventy-five feet long, eighteen feet wide, containing six rooms. Here Colonel Pope and Lieutenant-Colonel Downing had their offices in room No. 1. The Regimental Adjutant, the Regimental Personnel Officer, and the two Battalion Adjutants were located in room No. 2. In room No. 3 the Regimental Sergeant Major and the two Battalion Sergeant Majors, with their assistants, had their desks and typewriters. Here were kept near at hand and readily

accessible, numerous card files containing miscellaneous necessary data, together with the field desks. The next room was used as a place of general information. It contained the Post-Office for the Officers and a bulletin board on which was posted information of particular interest to officers. The Supply Office occupied the remaining two rooms.

A most necessary adjunct to a regiment is a medical department, and the 301st was particularly fortunate in having an excellent medical staff ably headed by Captain E. C. Greene, soon promoted to Major, who was closely assisted by First Lieutenants J. E. Hume and S. Stern with their enlisted personnel as helpers. The dental branch was taken care of by Lieutenant C. H. Tannebring, assisted by Lieutenants H. L. Stone and J. R. Quinn, the latter joining the regiment on October 22. First Lieutenant C. H. Mackey joined the regiment on October 29, 1917, as part of the medical staff. Major Greene worked for and succeeded in making the 301st Engineers the healthiest regiment in the Division. First Lieutenants Hume and Stern were promoted to Captains on November 13 and 10 respectively. First Lieutenant Stone was transferred on November 26, 1917, to concentration camp at Garden City, Long Island. Captain Stern was relieved from duty on January 31, 1918, and transferred to take command of the Medical Detachment, Q.M.C., at Camp Devens. Captain Hume was transferred to the 303d Field Artillery Medical Department, Camp Devens, on March 18, 1918, being replaced by First Lieutenant J. L. Touchstone, who joined the regiment the same date. First Lieutenant F. V. Daniels was attached to the Dental Department for only a short period, joining the regiment May 31, 1918, and transferred on June 3, 1918. First Lieutenant Mackey was promoted to Captain, M.R.C., on May 18, 1918, and transferred June 12, 1918, to General Hospital No. 4 at Buffalo, N.Y. First Lieutenant R. E. Brown, replacing the former, joined the regiment on June 19, 1918.

At its inception, a military organization is very dependent upon its Supply Officer. It must be fed, clothed, shod, and taken care of in many other ways. All the work and responsibility at the beginning fell on the shoulders of Captain H. J.

Betterley; Lieutenant Powers was assigned as a general assistant. The Supply Office had its quarters in Room No. 5 of Regimental Headquarters, using No. 6 as a general supply room.

About November 1 the first horses and mules came, these being assigned to the Engineer Train. Soon after, the Supply Officer secured mules and draft horses for the latter companies, with necessary harness, some saddles, and a few escort wagons. Some of the assigned horses were saddled and ridden, but it was not till early April, 1918, that the regiment received its real officers' saddle horses, some of which were fine specimens. For motor transportation there were two Garford trucks, three Dodge five-passenger automobiles, and two Harley-Davidson side-cars. Other regiments of the Division considered themselves fortunate if they had more than one side-car. A garage was built for the motor transportation.

The Topographical Office was organized immediately with the regiment, by Captain E. P. Trott, who had as assistants Lieutenants Day, Peters, March, and Galvin. Its work in general was the engineering required on construction, performed by the regiment or division. The equipment with which at first it had to work was not at all adequate to the demand made upon it. First the Office made road maps of Camp Devens, took soundings in the Nashua River, located triangulation points, and made a map, stepping up the U.S. Geodetic Survey of the Camp Devens area. A six-inch map of Camp Devens had previously been begun by the 101st Engineers, which the Topographical Office continued. It mapped out the ground for the Division Trenches, known as the Dry Bridge Road System, which was built by the infantry. The two Divisional Rifle Ranges started in October, 1917, by infantry labor, had been located, planned, and laid out previously by this Office. It also laid out the machine-gun course which was built by contractors.

Miscellaneous work, like the laying-out of assault courses and grenade fields, was handled, and recommendations made for the improvement of the Engineer Area. The development of zincography and lithography was gone into. The Office did considerable photography and blue-print work. Photographs were

taken of all the engineering work performed in the Division, and from these, enlargements were made of the most interesting.

The Office finally outgrew its quarters in a small building and moved to a more commodious place where it could more efficiently carry on the bulk of work it was performing. In the new quarters Captain Trott had a private office, a considerable improvement. On April 1, 1918, Captain Trott was relieved of his duties as Topographical Officer, taking over the command of "A" Company. Captain Dean succeeded Captain Trott; the Topographical Office was then busy on its miscellaneous Divisional work.

The six-inch map, begun at the start of the Office, was more nearly brought to completion. Larger-scale maps of all specialty and drill fields were made; many maps made for the Staff School, and a large amount of blue-printing and photography done. The Office sent some of its personnel to Washington Barracks for courses of instruction in photography, zincography, and lithography.

The Topographical Officer made a survey of and superintended the construction work of the rifle ranges. This comprised the lowering by six feet of the fifty targets on the "D" Range and the raising by two feet of each of the three firing points; that is, at 100, 200, and 300 yards, on Ranges "A," "B," and "C." During the months of May and June the Office was particularly busy in laying out the Divisional Maneuver Field at Still River. Due to long distances about Camp Devens, it was difficult for the parties to get to and from their work. A Dodge car at the disposal of the Topographical Office helped considerably. Captain Dean was promoted to Major on June 6, 1918, being relieved as Topographical Officer and taking command of the 1st Battalion.

Lieutenant Merrill was appointed Topographical Officer on June 14, 1918. The former work continued under his direction. Soon preparations for leaving were started and all equipment boxed and crated for shipment as heavy freight. All maps, records, schedules, and photograph films, were boxed and turned over to Lieutenant Buechner, of the 405th Detachment, for safekeeping.

On April 19 Lieutenant-Colonel Downing, now a Colonel, was transferred to the 109th Engineers, Camp Cody. He had commanded the regiment in the absence of Colonel Pope, who was away on sick-leave. With this transfer the regiment lost an officer whose influence in the organizing, training, and discipline of the command cannot be too highly praised. He made his influence felt in the policies which governed, and, with his departure, every man and officer felt that the regiment had suffered a great loss.

On the day of his leave-taking, the officers assembled in the mess hall to bid him farewell. In his brief talk he expressed his sorrow at going when he said, "Of the various assignments that I have had during the years of my service, some of which have been very agreeable and some not so, there is none to which I have become so attached as this, nor from which the separation has so affected me." April 19 Major Cassidy assumed command until June 12, when Colonel Pope returned. Soon after, Major Cassidy also was transferred from the regiment.

In addition to the six companies of the regiment, there was a seventh company, the Engineer Train, under the command of First Lieutenant Leighton, with Second Lieutenant Reynolds second in command. At first, men coming to the camp were assigned slowly to the Train, for by the end of September, 1917, it had only twenty men, whereas most of the letter companies were seventy-five per cent full. However, by the end of October it had its full quota. The training schedule followed out generally that for the letter companies, though the most important work it had was the care of animal and motor transportation, which it especially looked out for upon its arrival in France. On November 1, 1917, the Train received its first contingent of horses and mules and all during November more continued to arrive. The Train, as were the other companies of the regiment, was drawn upon for replacements to other organizations, and by April, 1918, there were only 60 men left. On April 24 the Engineer Train and the regiment lost Lieutenant Leighton by transfer to the 539th Engineers at Camp Gordon, Atlanta, Ga. Lieutenant Reynolds took command and was promoted to First Lieutenant on June 10. The company had been brought

up to almost its full strength of enlisted men by the middle of June. On the 24th all animals were turned back to the Remount Station, all equipment boxed, the men newly clothed, and everything put in readiness for the departure for France.

The engineer material furnished the 76th Division was handled through and purchased by the 405th Dépôt Detachment of which Lieutenant Buechner had charge. The regiment also secured its engineering material and supplies through this office. This detachment came under the supervision of Colonel Pope and it carried out the same schedule as had the 301st Engineers. When the Division left for overseas, the 405th Dépôt Detachment remained behind in order to carry on similar work with the division soon to replace the 76th.

The Post Exchange of the regiment was organized under the direction of Lieutenant Deacon and was located in one of the small extra buildings. This, however, soon proved to be decidedly lacking in floor space and the canteen was moved to a new building just completed and especially laid out for canteen purposes. Each of the regiments was provided with a similar Post Exchange building, The Exchange had under its supervision the Regimental Shoe, Tailor, and Barber shops. It did a large business, and, at the time of its closing on July 5, 1918, had paid out a total dividend of $31,680 to the Company Funds of the various companies. Lieutenant Deacon managed the Post Exchange until April 29, 1918, when he was relieved by Lieutenant Callaghan, who soon after, on May 17, 1918, was superseded by Lieutenant Bowler.

PONTON-BUILDING, ROBBINS POND

CHAPTER III

INITIAL, ADVANCED, AND ENGINEER TRAINING

THE general policy of the regiment was first to train the enlisted personnel in close-order drill, to develop as far as possible good infantrymen, and later to take up the various specialties of engineering work. This meant first the making of a soldier, and then of an engineer soldier.

In order to form a nucleus about which the non-commissioned officer personnel might be built up, there were assigned to each company in the regiment, five or six N.C.O.'s, from Regular Army organizations. These men assisted in the rudimentary institution. Men who had previously had military training in State militias and schools, or who were particularly adaptable, soon showed up prominently and received their warrants as N.C.O.'s. Thus, there soon developed the complete organizations of the companies.

On September 5, 1917, the first five per cent of the full quota of enlisted men for the regiment arrived and were assigned to "D" Company, Captain Waldron. It had previously been felt that the conscripted troops would require different methods in their training. However, and happily, the Rhode Island contingent proved to be the best the State had, and the expectations as to the necessity for severe rules were not realized. All through September and October the men continued to pour in until, by the early part of November, the regiment was practically up to strength and beginning to make some kind of a showing as troops.

These men came from Providence, Pawtucket, Woonsocket, Central Falls, and other cities and towns of Rhode Island; hence the regiment, as before stated, always was known as a Rhode Island organization. The men were in many cases of high caliber and well trained in various lines of work, representing such vocations as civil and mechanical engineers, trained mechanics, carpenters, electricians, construction men, and small

numbers from many other trades. Others, however, were factory hands, mill operatives, lace workers, dyers, and gear cutters of not too rugged physique and not suitable for the rigorous employment of engineers.

The men coming from civil life required especially two items of training: first, physical exercise for the physical betterment of the man and the development of a correct military carriage, and second, close-order infantry drill, which is the mainstay in developing discipline. Generally the men were adaptable and readily grasped the military idea. The change from civilians to soldiers was rather marked in the short period of six weeks.

The men were taught military courtesy and the meaning and significance of the salute, with the school of the soldier and the school of the squad. For a training schedule of this period, reference may be made to Appendix B. Short marches were made and Personal Hygiene and First Aid were taken up in lectures. The men were taught the manual of arms and the use of the bayonet, thus accustoming them to the handling of the rifle. It was also necessary to teach the duties of sentinels on interior guard duty. Appendix B also contains the special orders required at the nine posts of interior guard. For emergency, fire drills were held every now and then. The men soon were introduced to the pick and shovel, as a certain amount of trench and road construction was carried on. One afternoon per week was given over to compulsory athletics. During the month of September, about 1100 men were assigned to the regiment, and by the end of October, it had approximately eighty-five per cent of its full quota. Each Saturday morning, inspections of the companies were held at which each man and his equipment had to be in the cleanest and neatest condition. Soon after this introductory training, the use of engineer tools and equipment was taught and the men learned the knots and lashings and their use. After complete training in position, sighting, aiming, and trigger-squeeze exercises, preliminary target practice was held.

After having mastered the school of the soldier and the school of the squad, the men were given close-order drill in the schools of the platoon and the company. By this time, they were fast

developing into a real military organization; the schedule each week called for two regimental parades at Retreat. Elementary instruction in the Engineer Field Manual covering revetment work, obstacles, and spar bridges was taken up and later the subject of field fortifications and mining. The use of animal transportation was covered, and forced marches soon appeared on the training schedule, and the extended or open order was taught.

Among the special occasions of the regiment there were several which stood out most prominently. One of these events was the trip to Providence. The regiment entrained at 7.10 A.M. on the morning of Saturday, December 1, 1917. The train was run as a special with Colonel Pope in command. It rained during the entire trip and the regiment arrived at 10 A.M. at Providence. The men were then detrained, marched in review to the armory, and dismissed. The people of Providence entertained both the officers and men at dinner, at which Mayor Gainer was present. In the afternoon the theaters were thrown open to all men of the regiment. A supper was given by Mr. Jesse Metcalf to the Commanding Officer, with staff and the company commanders. In the evening a dance was given to the officers and men at which affair many naval officers and men were present. The dance was held in the armory. Lieutenant Governor Emery Sans Souci, who had at all times evinced great interest in the regiment, was particularly active in entertaining officers and men. He devoted all of his energies to the welfare of the organization while in the city. The regiment left Providence about 1 A.M. by special train, arriving at Ayer at 5 A.M. the next morning.

The foregoing training carried the regiment up to about January 1, 1918. In Appendix B will be found a list of calls for the regiment effective at this time; also the training schedule of this period. At that time the training schedule included physical drill, gas defense, and further training in field fortification and mining. Semaphore and wigwagging were introduced and the open-order and bayonet exercises and drills were carried on. From January 24 to 30, twelve-mile marches over roads heavy with snow were made by each company of the regiment, on which marches the men were taught individual cooking. About

this period the regiment sent twenty-seven N.C.O.'s and privates to the third Officers' Training School at Camp Lee, Petersburg, Virginia.

The regiment had just received its full quota of animals, and the men were taught the care and handling of horses and mules and equitation was taken up. Map reading and orientation were taught and the men learned how to throw hand grenades. Target practice on the range started the week of March 4, continuing through April and May. A cup for the best individual shooting on the range was offered. On the average, the results were good, considering some men had never before handled a rifle. During this period various companies had details on bridge and road construction. The men were taught scouting, patrolling, and outpost work, timber clearing and landscape sketching. In the early part of March, regimental singing was held. About this time regimental parades at Retreat occurred two times a week and formal guard mount three times. (See Appendix B.) Minor tactics and mule-packing were taken up and close-order drill was given by battalions. On each of the days of February 6, 13, 20, and 27, marches of fifteen miles were made with field cooking equipment. Starting April 8 practice marches with full equipment was introduced and minor tactics problems were held. The weather being much more pleasant, one afternoon a week was again devoted to athletics. Physical exercise was conducted as a regimental drill with the band. In order to prepare the men for the work overseas, drills in gas-masks were given at various times.

As the regiment began to cast off the "rookie" stage and the snap and smartness of a military organization became apparent, it felt the need of a band. Unfortunately, though, an engineer regiment does not rate a band. Of musicians there were sufficient, hence activities were begun to obtain instruments. The city of Providence responded at once by checks from individuals; later Sergeant Anthony, "B" Company, wrote a popular song, the proceeds of which were added to the fund. Entertainments by the men also proved lucrative and in a short time instruments were purchased. Daily practice soon brought creditable results, and after a few not highly successful attempts, the

band declared itself ready. At Regimental Retreat it took its part in the formation and later was used to provide music for physical drill in the morning.

On April 23, 1918, a regimental review was held by the Commanding Officer and the National and Regimental Colors were presented to the 301st Engineers by Miss Lynd of Pawtucket, Rhode Island.

From May 13 to 17, the regiment with complete transportation made a five-day hike to Ashburnham and return. The line of march on the first day was through Ayer and Groton to Townsend and was halted about five miles out of Groton for lunch. Camp for the night was made at Townsend, the regiment having covered fifteen miles. In the evening, the regimental band gave a concert to the townspeople. During the night, it rained and many of the men got a good ducking. After mess the following morning, the regiment left at 7 A.M., arriving at Ashburnham in time for lunch mess which was held near the lake. Camp was made just outside of Ashburnham on a wonderful site which had a very good water supply. This meant a march of fourteen and a half miles on the second day. That night there was a dance.

The next morning was fine and clear and the day was spent in maneuvers. In the morning the 1st Battalion was the defender of the Camp, and the 2d Battalion took the offensive. As this goes to press, the result of the combat is still in doubt. In the afternoon a meeting engagement was held. The chief point of this was that the two opposing forces failed to meet. Each of the forces deployed with precision, and at the command to fire there were 70,000 rounds of blank ammunition vociferously expended. That night a very successful show at the Town Hall was given by "D" Company, after which a dance was given to the officers. The next morning the command "Strike shelter tents" was given immediately after breakfast and the regiment, with seventy-five wagons in the train, wound its way toward Fitchburg. Just beyond and on the outskirts of Fitchburg, the regiment halted for lunch, proceeding after lunch to Massapoag Pond at Lunenburg, a distance of fifteen miles from Ashburnham. The next morning the regiment entered upon the last lap of the hike, about nine miles, arriving back at Camp, hot and

tired, in time for a good shower bath before lunch, having covered a total of fifty-three and a half miles.

Soon after this, transfers from Camp Upton and other organizations, with new recruits from civil life, were brought into the regiment in order to bring each company up to its full complement. As many of these men were practically new to the military service, it was necessary to conduct elementary drills for them. The "old" men in the companies were given work on spar bridges of single and double-lock type and ponton bridges and accurate grenade throwing was acquired by them. In the latter part of May, the regiment took part in the field problems in minor tactics of the 76th Division, held on the combat range.

Beginning about the middle of the training period the men were given much liberty in their week-end passes. A certain percentage went home each Saturday after inspection and returned by taps Sunday night. For the Providence men a number of machines came to camp, of which the men availed themselves. Communication by train to Boston was well patronized, though usually very crowded. The surrounding towns of Lowell, Fitchburg, and Leominster permitted of some recreation. On Sundays and holidays the Camp was filled with vast crowds of visitors, and men not having passes, whether from choice or circumstance, could see their relatives and friends. As an incentive an increase in the percentage of passes was given each week to the company having the cleanest barracks at inspection Saturday morning. This was won the first two times by "E" Company; then the honors went to "A," after which it became a difficult matter to judge because of the scrupulous cleanliness of all.

From the last of December, 1917, to a little after the middle of February, 1918, there were 534 men of the 14th Engineers quartered with the 301st. It was necessary to officer and train these men from the officer personnel of the regiment. At the time that this organization moved out, the 301st Engineers transferred 48 men to them and also 25 men to Camp Greene, North Carolina.

One of the disappointing features to the company commanders and to the regiment was the constant transferring and loss of men. After a company has been built up and each man has

learned efficiently to perform his part, the loss of the First Sergeant, Supply Sergeants, Company Clerks, and such men who have been assigned to special duties, is disheartening. For all these changes, however, there were good reasons.

Men who could qualify were sent to the candidates' school for officers; others of a different training were enabled to apply for a commission in the Quartermaster Corps. Thus from the regiment were developed officers for practically every arm of the service, the Tank Corps and Air Service included. Non-commissioned officers were transferred to newly forming training *cadres;* men skilled in such trades as the shoe industry or hospital work were often transferred; many were sent overseas as replacements. This condition was also true of the rest of the division, but the Engineers, having acquired many specialists, was particularly dismembered. It in turn received many men by transfer from other units and the Dépôt Brigade, but these were not always able to replace those taken away.

On March 25, the regiment was given the Division psychological tests. Soon after this, came the neuro-psychiatric test, the eye test, the tuberculosis test, and also the identification test, by means of finger prints.

The foregoing covers the subjects included in the training schedule of the regiment. During the later part of the period of training, special stress was laid upon engineering work. In lectures, the men in their separate companies were given the nomenclature used in field fortifications and were taught the elements of field fortifications and road construction. They soon became acquainted with the engineer tools and equipment and their use, knots and lashings; the construction of spar bridges; the construction of revetments, such as fascines, gabions, hurdles, and the placing of these in trenches, and in addition, sandbags, planking, and sod revetments. A park was established for the construction of the many forms of obstacles. The different types of obstacles were constructed, special attention being paid to the pulling up of low and high barbed-wire entanglements with organized working parties. N.C.O.'s and privates were given special instruction on the construction of shelters; and camouflage was carefully gone into. Engineer reconnaissance was

taken up; this included map reading, orientation, landscape sketching, and timber clearing. All during this period the carrying on of engineer work was most difficult, due to the severe winter which the northern part of Massachusetts experienced. The engineer training of the regiment included also the development of men expert in demolition work. Experiments were carried on, covering the blowing-up of rocks, trees, railroad ties, culverts, etc. Mines were blown, and in one case of the simulation of the attack, a barrage was very well imitated.

About three weeks previous to embarking for foreign service, ponton drill on Robbins Pond was undertaken. Previous to this, there had been constructed with what material was at hand, three ponton boats, the necessary balk and chess and fittings, such as oars. A ponton division was issued the regiment from Washington, and in conjunction with the home-made equipment and the loan of a second ponton division assigned to the 602d Engineers, it was able to make a creditable showing in the way of drill. Of necessity, the time being so brief, drills were held both afternoon and evening each week day for a period of about three weeks. The unit of organization for these drills was each separate letter company by itself for a duration of two hours. The drill was carried out with "Ponton Manual Regulations." The non-commissioned officers and men became fairly proficient in the drill, which was carried out as follows: first, a boat drill utilizing all available boats; then trestle take-off; and last, the regular drill followed out as laid down in the Manual. After construction, criticisms were made to the assembled company by the instructing officer, detailed instruction being given in such things as knot lashings, proper ties, etc., which were apt to more or less confuse the beginner. At the finish of the course, a competition drill against time was held by each of the companies in the regiment. "D" Company won this in the construction of the bridge in 42 minutes, 35 seconds, and in dismantling in 18 minutes.

PONTON-BUILDING, ROBBINS POND

CHAPTER IV

ENGINEER WORK

When it became possible to devote time to such work and the regiment had almost its full quota, it was found desirable to make a regimental street from the road in front of Regimental Headquarters to the Post-Office road. This was one of the first pieces of engineering work that the regiment performed. It meant the removal of about 50,000 cubic yards of earth and a fill of approximately 100,000 cubic yards. In this work scrapers were used to a large extent and the earth excavated at one point was used for filling.

As the personnel of the Camp increased in number, the amount of work of all kinds proportionately increased, but fortunately the bulk of this was done by the Public Utilities Department, otherwise the regiment, being divisional engineers, would have been overwhelmed. As it was, much work was performed for the Division; bridges, roads, topographical work, and engineer and construction work in connection with schools. This work was usually of a nature which permitted of instruction and training of value to an engineer unit and which developed non-commissioned officers who were capable tradesmen in civil life.

On one occasion the Topographical Officer received a hurriedly penciled note and sketches from Major-General Hodges, with instructions to lay out at once a site for a monument. The site chosen was just across the main road from the Hostess House and on top of the bank, at an elevation visible from all sides. At the foot of the bank provisions were made for a fountain, the water to be supplied from Willow Brook. It has since been learned that the monument was built after the regiment had gone. It is known as the "Sweetheart Monument" and constructed of stones brought to the spot by sweethearts or relatives of Camp Devens soldiers.

Another interesting and valuable task was the report and survey of Hell Pond. It was planned to make this a bathing pool

and swimming school. Soundings were taken which showed surprising depths. The location was ideal — encircled by a ridge of high land covered with pine and oak trees with a narrow strip of sandy beach on its edge. Samples were taken of the water for analysis and a detailed map made. When it was approved as the divisional pool, life lines were rigged at certain depths, rafts placed, and on its opening day it became a crowded and popular location.

In order to accomplish the engineering training of the men and at the same time produce something useful, various bridges were constructed across the Nashua River which ran through the Camp Devens area. The first of these was by "E" Company in November, 1917. The river at the point where this bridge was located was about four to five feet deep and about seventy-five feet wide. Twelve-foot piles averaging about eight inches' diameter were hand-driven by hand-mawls to a depth of about three feet below the river bottom. In the construction of the bridge the bents, of which there were seven on twelve-foot centers, were connected by three stringers of approximately eight inches' diameter. The flooring, consisting of two inches round saplings, was covered with sod. A six-inch diameter guard rail was placed and a hand rail of two-and-one-half to three-inch stock was constructed. All timber used was cut on the site. The bridge was designed for the use of foot troops only. At the point where the bridge was constructed, it was required that a road be built for 200 to 350 yards on each side, as the water covered this territory, especially in the spring. Due to the fact that the piles were only hand-driven, by the end of the winter, when the ice broke up, the bents were displaced and the bridge sagged on one side. It is interesting to note that the total cost, including value of lost tools, was about fourteen dollars and actual working time nineteen and a half hours.

Soon after the construction of this bridge and about one quarter of a mile from it, "B" Company constructed a similar bridge, using eight bents with ten-foot spans with four piles per bent. The bridge had a one-foot rise from abutments to the center. The spans consisted of six stringers of six inches' diameter; the flooring being of two-and-one-half-inch stock. Here

again the piles were hand-driven, and due to this fact, the bridge could not stand the force of the ice when it broke up the following spring. To this bridge, a corduroy road was built, which gave the men some experience in road construction of this type. Here again all the timber was cut near the site of the bridge.

About the same time, "A" Company built a bridge leading to the 300-yard firing point on the rifle range. For this work a steam pile-driver was secured from Boston. The river at the point where this bridge was constructed was about ninety-five feet wide. There were eight bents installed on twelve-foot centers with bents consisting of five piles which were twenty-five to thirty feet long, having an average diameter of about eight inches. The water was about four feet deep and the bridge was approximately fifteen feet above the water. The caps were twelve by fourteen-inch timber, drift bolted. There were six six by eight-inch stringers. For the flooring three-inch planking was used. A guard rail and hand rail were installed. All the timber on this bridge was sawed lumber and the bridge was capable of withstanding a load of about fifteen tons.

In March, 1918, "C" Company built a crib type bridge across the Nashua River, also near the rifle range. The bridge had five cribs, three in the water with two crib abutments, the total length of the bridge being eighty-five feet. The cribs at the top were five by twelve feet. The bridge was twelve feet over all, with nine feet roadway between guard rails, the bridge having both guard and hand rails. On this work, round timber entirely was used, except the flooring, which consisted of two-inch planking, placed at an angle to the center line of the bridge. The cribs for the bridge were built on skids on shore to a height of about four-and-a-half feet. Wine casks were put inside the cribs and they were floated out into position and then located. The bottom of the river was found to be comparatively level.

A pile bent bridge was constructed by members of "D" Company in the early spring of 1918 across the Nashua River. This bridge was built for the express purpose of crossing guns of large caliber to the artillery range, and was so used for the most part after its completion. A land pile-driver was leased under authority of the Chief of Engineers at Washington, from

the Hugh Nawn Construction Company of Boston. Piles were cut from virgin material at the bridge site and necessary lumber for decking and floor system was obtained from near-by towns. In regard to actual construction the piles were driven with a one-ton drop hammer in series of five pile bents placed eight feet on center with an average penetration of fourteen feet. Pile caps of fourteen by fourteen, stringers of four by twelve, and a double decking of three by ten, set diagonally, were used. Wheel guards and hand rails, tie bracings, etc., were added, making a complete bridge for the passing of tractor-drawn 155 mm. guns.

Although "F" Company did not build any bridge of its own, it furnished details on all these bridge construction jobs.

About April, 1918, it was found necessary to drain one of the ranges. This necessitated the construction of a ditch which drew water out of a hollow near the hundred-yard position. Across this ditch there was a small bridge constructed capable of carrying trucks. This job was superintended by engineer officers and, though some labor was furnished by the 301st Engineer troops, most of the labor was secured from the infantry organizations of the Division.

When shooting opened on the D Range, it was found that in cases of high shooting, the bullets would ricochet and several people in a near-by village were endangered. This range, consisting of fifty targets, was therefore lowered six feet. All of the labor was supplied by the Dépôt Brigade, and the work was superintended by engineer officers from the regiment.

About two months before the regiment's departure, a course of training for staff and field officers was instituted under the direction of Major-General Hodges, who attended regularly. The instructors were the members of the French and British Missions, with a special instructor in liaison. Officers from every unit attended this, including regimental and brigade commanders.

Preparation for the course increased the work of the regiment, it being required of its Topographical Office to provide quantities of maps, drawings, and blue-prints; to send out surveying parties, and to be prepared at all times to perform any engineering work necessary.

The Still River section was chosen as the main field for demonstrations involving the construction of a complete trench system laid out by Major Rousseau, a French engineer officer. This work was given to Major Whipple, who organized the thousand or more soldiers engaged in the trench work. When complete, this field (known later as Amann Field) was used for firing problems for artillery and machine guns. In one problem the artillery, from a distance, fired on the barbed wire and effectively destroyed it, even though shrapnel only was used.

Across Still River several spar bridges were built for an infantry problem. This developed some work of a very practical nature, as the river was sixteen feet deep in some places with several feet of soft ooze on the bottom. Sergeant Warren, however, managed to finish in good time, though having to carry his material some distance.

At this time the Divisional artillery had been firing regularly at different points of the cantonment. From a certain ridge across the Nashua, batteries were almost continually firing. As an experiment, wire was strung as a target and fired on, at a two-thousand-yard range, with satisfying results. One of the duties added to the engineers was the destruction of "duds" which from time to time were found on the fields used for this firing.

Because of the many courses in grenade throwing, sniping, firing, and bayonet training, there was much mapping to be done, requiring long trips and longer hours, and surveying parties were sent to all points of the cantonment. Each of these courses had British, French, or Canadian instructors, and as a tribute to them, large signs were erected naming each field after the particular instructor in that course.

On Mallet and Warren Fields the regiment spent several days blowing shell-holes (100 pounds of dynamite in each) in order that the grenade thrower might find conditions as in actual battle. In connection with the Trench Mortar Field a dugout was constructed in the very sandy ground. During the work, the heading caved in several times, until a bulkhead had to be used continually.

Another feature of a spectacular nature was carried out behind the Base Hospital, at the Bayonet Course. Colonel Croft planned

a night attack here for the students, in which five barrage lines were to be represented. This was done by means of sticks of dynamite fastened to the ends of long lines of poles upright in the ground, exploded by engineer sergeants stationed at the end of each line. As the waves of soldiers advanced in the darkness, the dynamite was exploded, the wave passing on to the next line. Though dangerous, it was very successful and showed the necessity for accurate timing of an advance.

In the late spring, numerous spar bridges of the single and double-lock type were built at the Divisional Combat Range. These latter were for temporary use and sufficiently strong to carry light artillery.

In order to have a suitable place for practical work in the schools of field fortifications, the commanding officer decided to develop a model trench system in the Engineer Area. The system contained a front-line trench, just over the brow of a hill. Leading back from this there were boyaux with bombers' posts, extending to the cover trench, which was on the rear slope of the hill. These trenches were revetted with different forms of revetment, such as sandbags, planking, sods, fascines, hurdles, and gabions. Listening-posts were located in front of the barbed wire, which latter offered an obstacle to the entire front line. Automatic rifle positions were located in the front line, enfilading each straight stretch of barbed wire. Splinter proofs were built and latrines located. The support line was dug a short distance behind the cover trench, and in this deep gallery shelters were made, illustrating both the case and the frame and sheeting methods of construction. Some of the galleries leading to the shelters were put through solid rock. At suitable points, there were located chevaux-de-frise obstacles which readily could be rolled into the trenches.

The original siting of this trench system was by Captain Henri Amann, of the French Military Mission, and his assistant, Adjutant Arneuf. As time went on and the need for expansion occurred, the area increased in size and was finally carried across the road. In connection with the trench work, many and various experiments were carried on; trees were reproduced in concrete, covered and Russian saps dug, different trench traces used, and

MODEL TRENCHES, ENGINEER AREA, DEVENS

reverse and forward slope positions tried; the trenches were named and signs placed. Bengalore torpedoes were used in breaking through obstacles, and other means attempted. The whole field was broken up by dynamite charges placed in a manner to simulate shell-holes.

Across the road had been built a carefully concealed concrete pill-box with a field of fire which included the entire north corner of the cantonment. It was approached from a rear position by a winding, covered sap, not visible to the closest observer, particularly after the coming of the foliage.

On the rear slope and on the edge of Robbins Pond were several magazines for storage of explosives, equipment, and tools, the whole being the counterpart of a forward engineer dump. Here there were concealed machine-gun positions which during the winter had been camouflaged to fit a winter landscape and now had to be completely changed. That the work was successful is attested by the fact that many who sought to examine them or suggest improvement stumbled on to them suddenly and fell into the emplacements.

The dugout construction on this hill was valuable as an experience, in that many kinds of digging were encountered; some of the galleries reaching the level of the pond were flooded when the water level rose and had to be used for other purposes; in others, every foot of excavation had to be drilled and shot; in still others, a fine sand presented new difficulties and required the use of bulkheads.

To the south lay the Obstacle Field where the different forms of wire and movable obstacles were arranged. Usually the demonstrations for the divisional officers' classes were given here, and by the use of large quantities of dynamite, they were made of more than average interest. Lying next to this was the third field where the pick-and-shovel work was done by officers, a group being assigned a section of trench to build. Directed by engineer officers and directly supervised by engineer N.C.O.'s, the work was a practical school for officers having had no such work before. This whole field was laid out with a view to its eventual use for occupancy by troops, its tactical uses being taken into consideration. One set of trenches were on high ground, the other

in low, swampy ground; these were of the breastwork type. All the lay-out and much of the labor were by officers of the various arms of the service. The soldiers of the 602d Engineers received their first trench instruction here.

The whole area was supplied by an engineer dump stocked and operated by the regiment. A permanent personnel was always on duty in connection with school work, revetment-making and similar duties.

The last piece of work to be finished was a mine. The gallery began at the foot of the rapidly rising slope upon which was being dug the trench line. It penetrated a distance of about 115 feet, the heading at the end having 26 feet of earth over it. The gallery was worked in two shifts in order to complete it at an early date. It was framed throughout and the excavated material removed by wooden cars and track. To facilitate the work at night carbon lights were placed at the entrance.

The heading was loaded with 1500 pounds of commercial dynamite, closely packed and bulkheaded; lead wires were brought down the gallery and led to a point on a near-by hill.

The date for the explosion was set and General Hodges and staff invited. A photographer of the International Film Company asked permission to take moving pictures for public use and on the day chosen located his apparatus in an advantageous position. As Sergeant Begore pressed down the lever, the earth for hundreds of yards responded in vibration and a great column of earth and débris rose in the air, taking with it the sandbags and revetment of the trenches, conveying to the spectators an idea of what might be expected, in some degree, of the mining in connection with combat.

Much time and care had been spent on these trench fields, with the result that the developed system was elaborate and ideal, as was seen later when compared with some of the crude, makeshift trenches in France. Ours resembled more closely, perhaps, the well-made German trenches of 1915–17, but served well the purposes for which they were intended, the instruction of recruits and a knowledge of what could be done, time and circumstances permitting.

CHAPTER V

SCHOOLS

The 76th Division was reputed to have the best school system of any of the divisions. There were schools for officers and N.C.O.'s in Field Fortification, Pistol, Rifle, Automatic Rifle, Machine Gun, Stokes Mortar, Anti-Gas, Grenade, Bayonet, and Equitation. For officers above the grade of Captain there was a Staff School. There also was a school for officers in Coördination. Further, for N.C.O.'s and privates there were schools in Mechanics, Stable Sergeants and Farriers, Horseshoers, Saddlers, Cobblers, Mess Sergeants, Cooks, Buglers, and Bakers. These schools were under the general supervision of Lieutenant-Colonel Croft. In this work the French and British military attachés gave their close coöperation and did a large amount of work in connection therewith, thus being a considerable factor in their success.

The officers and N.C.O.'s, after attending any school, were returned to their regiments and companies, where they acted as instructors in schools for the men of their regiments and companies in the subjects which they had taken up. Thus there were conducted within the regiments, schools—in addition to the foregoing — covering subjects essential to the enlisted personnel.

Colonel Pope had charge of the schools pertaining to Military Engineering which included Field Fortification, Coördination of All Arms, and Infantry Pioneer Platoons. The 301st Engineers furnished from their officer and N.C.O. personnel, instructors for these schools. In Appendix B will be found a list of the officers of the regiment who were connected with the schools.

The Officers' School in Field Fortification covered seventeen periods as shown in Appendix B. In the course there were fourteen lectures and three periods given over to practical demonstrations.

The course in the Coördination of All Arms embraced twenty lectures. Some of these lectures were given by English and French officers who were particularly acquainted with and expert in the

arm of the service under discussion. In this course there were many practical demonstrations showing the operation of automatic rifles and machine guns, which proved very valuable. (For an outline of the course see Appendix B.)

The School of Field Fortification for N.C.O.'s comprised a course of ten lectures in which half of the time of five lectures was devoted to practical work. (For an outline of the course see Appendix B.) The course was divided in halves and at the end of each half an examination was given. Sample examination papers are shown in Appendix B. In each of these schools, there were about 130 N.C.O.'s. Each man was required to take notes which were handed in at the end of the course. In the examination the men were permitted to use their notebooks. Upon completion of the course, each man was given a grading based upon the two examinations and the notes which he handed in.

In the School for Pioneer Infantry Platoons there were four platoons, one from the Headquarters companies of each of the four Infantry regiments of the Division. Each platoon was in charge of its own lieutenant and all under the immediate supervision of an engineer officer. The school was entirely practical. The subject of Field Fortification was first taken up. The work was carried on in the set of trenches at the Dry Bridge Road; the trenches having previously been constructed by the infantry regiments of the Division. The original lay-out, however, had taken into consideration principles which later were obsolete, due to the changes brought about by the continual change of methods in the warfare in France. It was attempted to modify this lay-out to meet these later conditions, but this was found rather impracticable, and so the trenches were used by this school as a place for constructing special pieces of work.

The men learned how to construct the various forms of obstacles and revetments; placed the revetments in the trenches, which they also dug; put up barbed-wire entanglements with organized working parties, and constructed deep gallery shelters, one having an observation post.

The next work to be taken up by this school was Road Construction. A road was built from a point on the main road near

EXPLOSION OF MINE IN ENGINEER AREA AT DEVENS

the Major Willard House to this side of "A" Company's bridge over the Nashua River. The work required the use of slip-scrapers, as there was considerable cut and fill work. At the point where the road passed under the Boston & Maine Railroad, it was necessary to place a rock rip-rap in order to secure sufficient width. The question of drainage had to be taken care of, and two good examples of culverts were constructed, one with iron pipe and the second with wood box. The road over its entire length was sufficiently wide for two-way traffic. Over a portion of the road it was possible to distribute some two-inch trap-rock, and this in turn was covered by about one-half-inch material.

Upon the completion of the road work, the platoons constructed a bridge across the Nashua River at a point back of the Base Hospital where formerly there had been a bridge connecting the old Harvard-Shirley road. The river at this point is about 110 feet wide and just to the west it makes a gradual bend. Immediate to this location there is a wood with some very good oak, chestnut, and birch timber. All the material for the bridge was cut by the platoons from this wood and drawn to the point of construction with drag-chains by means of horse or mule teams. In some instances, it required four mules to get out the larger diameter pieces.

The bridge was crib type, having five cribs. Each crib was constructed of six- to seven-inch material. The cribs at the top were twelve by five feet. The river here was slightly over eleven feet deep and the bridge was about four feet above the water, thus requiring cribs from fifteen to sixteen feet in height. The cribs in each case were rock-filled to a height of about two to three feet below the water-level. There were five stringers used between bents, these being of diameter anywhere from eight to sixteen inches, and were twenty-two feet long, being cut so as to dovetail with the following stringer in each case. The flooring of the bridge was three to four inches round, over which there was a thin covering of fine broken rock, and on top of this about two inches of gravel.

The bridge itself was twelve feet wide with a roadway nine feet wide, having an eight-inch diameter guard rail, and a handrail constructed of two-and-one-half-inch stock. For abutments,

the men rebuilt the abutments of the old bridge, which had been gone for about fifty years. It was found difficult to locate only one crib, which had to be placed upon a sloping bottom. The cribs were built upon shore and were skied down ways into the water, where they were pulled over on their side, hauled into position, and again turned upright by means of ropes, one being tied into position, and again turned upright by means of ropes, one being tied to each corner of the top of the crib. The cribs were drift-bolted with one-half-inch bolts, and the stringers were bolted to the cribs by means of three-quarter-inch drift bolts. All the timber necessary was found near the job. The labor was supplied by the men, the only outside expense necessary being for the drift bolts. In the construction of the bridge considerable competition and enthusiasm for the work was obtained by giving each platoon a crib and span to construct.

CHAPTER VI

ATHLETICS AND AMUSEMENTS

It might be readily imagined that a military organization, working for a definite object such as its part in the defeating of a formidable enemy, would be most seriously minded. This was very true, but at the same time the spirit of play and sportsmanship, always a part of the American, evidenced itself. Athletic sports have always played an important part in the life of any red-blooded people, developing physical endurance, vigor, and quickness of mind and body; qualities particularly essential in a soldier. Recognizing the value of the American love of sport, physical development, *esprit* of organization, and recreation from the steady grind of drill, the army encouraged all forms of athletic games and sports. Divisional, regimental, and company athletic officers were appointed whose special duties were to arrange schedules and encourage competition among the various units. Men with whom sports were unpopular were urged, and some compelled, to try some form of athletics.

It was as natural as the coming of the fall season that one of America's prime sports, football, should first be given attention in the regiment. The athletic officer issued a call for candidates for a regimental team. Good material, men who had played football at high school or college, came out for practice, and were rounded into shape by the assistant athletic officer as manager, and one of the enlisted men, a former college star, as captain and coach. Two games were arranged for and played with the teams of the 301st Ammunition Train and the 25th Engineers, both at Camp Devens. In October the team made a trip to Rhode Island, where they lined up against Brown University and Fort Greble elevens, which teams proved too strong for the 301st Engineers team. Gate receipts from the last two games increased the athletic fund already started by subscriptions volunteered by Rhode Island people. This fund was used for the purchase of athletic equipment for the various sports of the

regiment. Before the end of the season two of the best men from the regimental team were selected for the 76th Division eleven. Considerable rivalry was developed between the companies and the battalions and an inter-company schedule planned both in football and soccer. Company "F" won the championship in football and claimed the honors in soccer. In the contests in soccer between the two battalions, the 2d Battalion defeated the 1st.

The football season, although on the whole a success, had suffered under the handicap of coming as it did during the commencement of the training period, which required most of the time and energy of the men. Also, a suitable athletic field was not available. An attempt had been made to build one within the Engineer Area, but the swampy nature of the ground rendered it almost useless. Owing to the poor athletic field the company streets were used for playing the less strenuous game of volley ball, a new and interesting game to many men. Nets and balls were secured for the different companies and company teams were organized. The Engineer Train took the championship in this branch. Several Divisional athletic meets were held in the fall, in which cross-country races, sprints, and relay races were scheduled. There was a Marathon race of five hundred entries in which each regiment of the Division had ten men entered. Four men of the 301st Engineers finished among the first fifty and the best man of the regiment finished number seven in the race.

With the coming of cold weather and snow, which came early in the winter of 1917–18, lovers of outdoor winter sports had opportunity to partake in their favorite pastimes — skating, skiing, snowshoeing, and tobogganing. A big toboggan slide was constructed on the steep bank of Robbins Pond with the finish of the slide on the pond itself. Although the outdoor sports were enjoyed by many during the winter, probably the indoor sports proved more popular. A room in one of the barracks was fitted up as an athletic center. Here the men had gymnasium work and held boxing, wrestling, tug-of-war, and rubicon contests. In the rubicon, an innovation requiring a team of seven men on a side was introduced. The object of each

team was to pull the other over a line between the two. The team consisted of two men who were backed by three and they in turn by two more, each group taking hold of the belts of the men in front. The two men in front, who toed the line between the two teams, performed a sort of "catch-as-catch-can." For the best team of the regiment there was offered a cup, which Company "F" succeeded in capturing by defeating Company "C" in the final contest.

The Divisional athletic programme included the formation of basket-ball teams in every company of the Division. Contests were held at times specified, in the new Y.M.C.A. and K. of C. auditoriums, between companies of each regiment, the winners playing in semi-finals from which three teams were picked for Divisional championship games. "A" Company of the 301st Engineers produced an unbeatable combination in the elimination contests in the regiment won in the semi-finals but had the misfortune to be placed in quarantine for measles so could not compete for championship honors. The team made one trip to Newport, Rhode Island, where it played against a fast team.

The art of boxing received early attention. This sport was expecially encouraged, as it developed the fighting instinct in the soldier and gave him ability and confidence in his ability to defend himself thus coördinating with the bayonet training in preparing him to go "over the top." Divisional boxing schools, to which several N.C.O.'s from each company were detailed, were started. The N.C.O.'s attending these schools were later used as instructors in their own companies. Many good boxers developed, some of whom had never before handled the gloves. Contests were staged in each company and between companies in the barracks and in Y.M.C.A. Hut 23. Company "E's" boxing team won the Regimental contests. The greatest interest was found in the Divisional matches held every Wednesday night at the big Y.M.C.A. Auditorium. The regiment frequently entered contestants in these matches and had the distinction of producing the Divisional heavyweight champion. The boxing bouts were supplemented by occasional wrestling matches, but this sport did not have as many devotees as boxing and never became very popular.

No account of athletic sports and amusements would be complete without mentioning the fine work of the Y.M.C.A., K. of C., and similar organizations. All were dedicated to the task of providing wholesome recreation for the American soldier. The "Y" Hut 23 and the Auditorium were both within the Engineer Area; the K. of C. buildings being located a little farther away. The Y.W.C.A. established a very attractive Hostess House on the road from the main gate. This building was very well constructed and well planned, there being several fireplaces, a library, and a very good lunch counter. In addition to the foregoing there was the Soldiers' Club which was completed in December. This building was equipped with every convenience, being very well furnished. It contained ten bowling alleys, fifteen pool and billiard tables, four huge fireplaces in which fine big fires burned most of the time. The large main room contained comfortable lounging chairs, tables, two pianos, a Victrola, and also some fine large rugs, quite a few of which were obtained from the German vessels seized by the U.S. Government at the start of the war. Here also there was a buffet lunch.

The building was situated at a vantage-point on Robbins Pond, and from the large awninged veranda one had a fine view overlooking the lake and the hills beyond. In all of these places the soldier found a place for social gatherings, most homelike, where he could spend his evenings reading or writing. Each week during the winter at Hut 23 an athletic night was set apart. At this, boxing and wrestling matches predominated. The Auditorium had a seating capacity of about three thousand and provided a place for many attractions such as lectures, theatricals, minstrel shows, band concerts, boxing tournaments, etc. Here also were two basket-ball and hand-ball courts with equipment provided by the Y.M.C.A.

Other places of amusement were provided in addition to these. At the start of camp a theater was opened up in an old commissary building vacated by the camp construction companies. Here several stock companies and many of the well-known Keith's vaudeville acts were given. Later the large Liberty Theater, built by the Training Camp Committee, was

DESTROYED GERMAN PLANE

opened and under the direction of Shubert of New York there were presented some of the leading New York and Boston shows.

The 301st Engineers discovered that it had much talent for entertaining among its members by giving a regimental variety show in the Auditorium. It proved a big success and was the forerunner of productions by individual companies. "D" Company's Glee Club made several trips, one of which was to Providence, Rhode Island, where it met with considerable favor. "F" Company made a venture on a more elaborate plan with a combined glee club and vaudeville show taking trips to Bath, Maine, Pawtucket and Providence, Rhode Island. Company "C," not to be outdone, rehearsed and put on a successful show and dance in Providence. The season was ended by a week's trip in May with an entertainment team formed from talent secured from all the companies.

Besides the organized regimental and company entertainments there were frequent "Stunt Nights" in the different company barracks, sometimes followed by a dance until it was decreed that such dances would not be permitted in the barracks. In November the regiment held two dances in one of the newly completed overflow barracks, the first given by the officers and the second by the enlisted men. Saturday night dances held in the Officers' Club began during the winter, each regiment of the Division in turn acting as hosts. The 301st's turn as host came in April.

With the opening of spring, the Regimental Field Day, one afternoon each week devoted to athletics, again had a place on the training schedule. A pine grove in the Area was cleared to make a parade ground and used for the athletic field. The old games — tugs-of-war, relay races, and rescue races — were played again as they were in the fall. Company "A" won the cup for the championship in the tug-of-war. There were mule-packing contests between the different company packers; wagon races for the teamsters, consisting of hitching up a four-horse team, driving a certain distance, returning, and unhitching. Best of all were the bareback mule races, a wild ride in which a dozen men and mules took part. Push-ball was enjoyed by

many men, and was played after supper in the spring evenings. There were no set rules — just a general rough-house. Also a game called "dodge ball" caused much fun. Here a few men stood in a circle and a second group outside threw a basket or volley ball — each man in the circle who was hit being eliminated.

Due to the large number of men, it was impossible to have sufficient tennis courts. The regiment had but one tennis court, which, however, was not used very much, due to the fact that it was finished only a short time before the regiment left for France. Baseball, early in the spring, became the main topic for the athletic enthusiasts. Captains and managers were elected for company teams and a schedule of games prepared for the "Twilight League" between the companies. A regimental team was organized, but failed to play a game. All the interest was centered in the inter-company competition, in which "F" Company won the championship of the League. Teams representing the two battalions played a final game July 11, the day before departure for overseas.

CHAPTER VII

OVERSEAS PREPARATION

As summer dawned, rumors of the regiment's proceeding overseas became persistent. Replacements began to come in and the companies of the regiment took on an appearance of completeness. Around the well-trained troops was built an efficient organization and the stage was set for an early departure. On April 27, 28, and 29, the regiment with full equipment and transportation was reviewed and thoroughly inspected by Colonel Lytle Brown, of the Inspector-General's Department at Washington, D.C. Considerably before this, on December 3, 1917, there had been a review of the Division by Assistant Secretary of War, Mr. Crowell. The order for the review of the regiment by Colonel Brown on Sunday, April 28, 1918, is given in Appendix B.

It was not until late in June, however, that definite orders were received that the 76th Division was to move. The regiment, on June 27, sent an advanced contingent of nine officers and six N.C.O.'s who were to proceed ahead of the regiment in order to attend engineer schools in France. The Regimental Supply Office was now particularly busy closing up its various accounts with the Quartermaster and Ordnance Departments and getting ready for shipment the various equipment which was to go as heavy freight and also that which was to follow later as light baggage. Each company was also extremely busy getting its heavy freight boxed and ready for shipment. Far into each night the companies were busy making boxes and making out inventories and tags for the equipment which was to go forward. Also, it was necessary to take up in detail the lists of equipment which each man must have before proceeding overseas.

The heavy freight was shipped during the first week of July, but never actually reached the regiment again. All wagons, horses, and mules had to be turned back respectively to the Quarter-

master and Remount Station. All harness, however, was boxed for shipment as heavy freight. The Adjutant's Office, Personnel Office, and the clerical departments of the companies found it necessary to work almost continuously in order to get ready the qualification cards, service records, and individual equipment slips, together with similar data required for each man. The complicated sailing lists also had to be made out. At night, the companies held formations so that the men would learn their correct place in line, in accordance with the order of the sailing lists, this order being a right by file formation from a column of squads.

After July 1, physical and kitchen inspections of all men and companies respectively were made by the Regimental Surgeon. At the last minute, some men unfit for overseas duty for one reason or another had to be dropped from the rolls and new men brought in to replace them. The men turned back their old and surplus clothing and were fitted out with entirely new clothing, including breeches, blouses, shirts, wrap leggins, first-aid pouches and packets, etc. Each man also had to have two identification tags, bearing his name, number, and "U.S.A." Many formations were held in which every article of each man's equipment was thoroughly inspected by company officers in order to see that everything was absolutely in "A-1" condition. A list was made up giving exactly what each soldier should have in his pack and barrack bag. All excess personal belongings had to be sent home. (See copy of list in Appendix B.)

Three or four day leaves were granted each man and officer in order that he might return home to see and bid his relatives and friends good-bye. On July 10 there was shipped all light baggage, including the Adjutant's, Supply Office, and Personal Office files, clerical equipment, field desks, officers' trunks, mess equipment, and medical and dental supplies, etc.

The Engineer Train was the first unit of the 301st Engineers to leave camp, drawing out on the afternoon of Wednesday, July 10. It proceeded to the train yards where it entrained, and proceeding northward arrived at Montreal at 11 A.M. on the 11th. It embarked at 4.45 P.M. on the Durham Castle, proceeding down the St. Lawrence River and around the coast of New

NO MAN'S LAND FROM THE AIR

Brunswick to Halifax, where it arrived on the afternoon of the 16th at 3 P.M. After a three days' stay on board at Halifax, the Durham Castle, with the Engineer Train aboard, left the port of Halifax at 8.30 A.M. on the morning of the 20th, bound for England.

The balance of the regiment did not have long to wait. Just after midnight of Friday, July 12, 1918, the first companies of the 301st Engineers locked the doors of the barracks they had occupied so long at Camp Devens and, at a single blast of the whistle, started for France. The regiment was divided into two sections, each of which was entrained as a unit. Quietly the regiment marched down the familiar roads to the Quartermaster siding where it boarded the waiting trains; and with no cheering crowd or weeping relatives started quickly on the first step of the "Great Adventure."

The special trains rolled quickly westward to the Connecticut River and then southward to Springfield, Massachusetts, and to New Haven, Connecticut, there to be served with hot coffee by the Red Cross ladies, who were the last American women the men were privileged to speak to for many months. After several short stops, where questions as to identity and destination were answered casually by the remark, "I don't know," the train sped on its way to New York, with last glimpses of places familiar to many of the men. Arriving at the Harlem River freight yards, boxes and baggage were rapidly transferred from the train to a waiting ferry. The officers and men were hastily examined, and amid a few shouts from the children on shore, the regiment was carried down the Harlem River to New York Bay and across to the Bush Terminal. Here, again, everything was moved, and after being served with coffee and buns the regiment was checked up the gangplank of the waiting Australian coaster Katoomba. While the men were adjusting themselves to their crowded and bitterly contested assignments of space, the ship's derricks were creaking in their work of loading the regimental baggage. On the morning of the 14th, the ship drew out of its dock on its way to join the escort which was to accompany it overseas.

Over Seas

PART II

PART II

CHAPTER I

THE ADVANCE SCHOOL DETACHMENT

Of the many orders reaching Regimental Headquarters none was, up to the present time, so surcharged with interest as (Confidential) Special Order No. 159, dated June 24, 1919, Headquarters N.A.C., Camp Devens; for this order directed that "the following named officers and non-commissioned officers will proceed to Pier 58, North River, New York, so as to arrive not later than 8.00 A.M., June 27, 1918 . . . for transportation overseas." This order had been anticipated many days by those chosen to go. In the party were officers and non-commissioned officers from every unit in the division, who were to be sent ahead to join the schools of the A.E.F., and be prepared to instruct and inform their arriving units in the practices and methods of our overseas army. The story of the trip is told by the members of the detachment.

On a dusty day during the second week of June, 1918, a number of officers and sergeants were seen leaving, singly or in groups of two or three, the Engineers' Area. They were dressed in their holiday uniforms and carried handbags or suitcases which they piled into the busses at the Post Office and then climbed in themselves, invariably giving directions for Ayer Depot to the driver. In short, something was happening, those who had observed this mysterious exodus decided, when it became known that there were six sergeants in the group, one from each company, and that the officers were distributed fairly evenly through the letter companies. All indications pointed to — France.

France it was, and despite every attempt to keep the matter secret, it soon became generally suspected throughout the regiment. This group of nine officers and six sergeants had been selected as the Advance School Detachment of the regiment and

was under orders to be ready to proceed to an embarkation center for transportation to France at an early date. Tentative passes of seven days were issued, subject to recall by telegraph, and it was this departure for home and last farewells that caused so much speculation by the remainder of the regiment.

Seven days passed and all returned to the regiment primed for immediate departure for the scene of the great conflict. Good-byes had been said. Relatives had been given to understand that they would in all probability hear no more from us until we had arrived safely in France. But a couple of days rolled by with not a sign of the expected departure. Guarded telephone calls (for already had been felt the rigors of censorship) reëstablished the severed connections with relatives and friends. Another day came and went. And still another. Before we knew it, it was Saturday again and some of us had week-end passes. Once more we were at home for an unlooked-for thirty-six hours. We returned and spent Monday in a state of expectation, likewise Tuesday. Likewise Wednesday — Thursday — another week had passed. But most of us were rather weary of week-end passes this time. We had said good-bye too often. And then surely those orders would come Saturday or Sunday and find us away.

But they did n't. Tuesday we were informed that the orders had arrived and we managed to obtain stealthy views of them. We were ordered to report not later than the morning of the 27th to the embarkation officials at Pier 58, New York City. The Divisional Detachment would leave Camp Devens the afternoon of the following day under the command of Lieutenant-Colonel Stewart.

The next morning Major Dean called meetings of the officers and the sergeants separately, and outlined to them the plans of procedure, the necessity for secrecy, and the other details of preparation for the trip. We were examined physically by the medical officers; the sergeants checked up on their equipment and were issued whatever they lacked; the officers assembled their equipment in their bedding-rolls and locker trunks, and shortly after dinner a pile of luggage, each piece marked conspicuously with the cubic contents, weight, and the designation

"A.E.F.," was assembled near the headquarters building, and a few minutes later loaded on one of the regimental trucks and sent to the Quartermaster siding. Another truck rolled up and, after a chorus of farewells, the party, including Major Norman Dean, Captains M. H. Pease and John Devlin, First Lieutenants C. J. Kittredge, Kelly, Shepard, E. F. Deacon, E. J. Weaver, J. A. Root, and Sergeants Bodecker, A. Wright, R. V. Gay, C. J. Lawson, McKinnon, and Maloney, climbed aboard and rolled off again in the wake of the baggage truck.

At the Quartermaster's siding the details from the other regiments from the Division were assembling. Cars were assigned by organizations and the order to entrain was given. At four o'clock the train, bulging with khaki-clad figures from every window, bade Camp Devens a mute farewell and started on its roundabout way to the Nation's metropolis.

There is one event of that trip which stands out in memories with unusual clarity. As the train pulled into Springfield, the cars were each a bedlam. In the men's coaches the backs of the seats had been removed and laid across the seats making a sort of continuous, cushioned platform on either side of the car, and on these men were laid out or curled up with an entire disregard of system or form. Others were sleeping, or attempting to sleep, on the aisle floor, and in various parts of the car small groups of indefatigable youths were smoking, talking of what lay before them, or trying for an effect in close harmony with soul-rending songs of home and mother or the girls they had left behind them.

The train slowed down, stopped, and men who appeared to be sleeping rose on one elbow and, shading their eyes, peered out into the station platform. Women dressed in the Red Cross costume were hurrying from a booth near the waiting-room to the various cars, carrying pitchers of steaming coffee and baskets of fruit and sandwiches. A shout went up, and the sleepers awoke. Canteen cups were produced and held ready as the coffee-bearers entered the cars and made their way down the aisles, filling each man's cup and exchanging cheerful, friendly greetings with all. Following the coffee-bearers came more women with the fruit and the sandwiches. Oranges, bananas, and plums

made their way into grateful hands, and to top off the feast more workers passed down the aisles with smokes, checker sets, and magazines. Hearty cheers for the Red Cross and for Springfield pealed out from the train as it slowly, jerkily pulled out of the station and gathered speed. Sleep for several hours was out of the question and the magazines and checker sets were made the most of. Then the cars grew quiet, lights were extinguished and sleep held sway.

The next morning we awoke from what sleep we had been able to obtain, rose, and performed our ablutions in the kegs of water which had been placed at the entrance to each car for that purpose. Having made ourselves somewhat presentable, we finished what little remained from the light lunches which we had brought from camp and then strolled out into the railroad yard where the engine had left us during the small hours of the morning. With the aid of neighboring signs and landmarks, we charted our positions as near 123d Street in Upper Manhattan.

We soon received the order to detrain and were formed and marched through the yard to an East River dock, where we embarked on an old river steamer, the Ossining, and steamed down along the east coast of the island around the Battery and up the Hudson. We watched the pier numbers and soon saw No. 58 in the distance. As we drew nearer, we noticed several large camouflaged steamers near the pier, the largest of which we later learned was the famous Vaterland. There was a Lackawanna ferry moored at our pier from which flowed a steady stream of soldiers, and we stood by a little way offshore and waited our turn. Soon it came, and we steamed alongside and moored. The order was given to disembark and we assembled by groups on the immense dock. While we were waiting, Red Cross workers made their way through the mass of soldiers dispensing buttered rolls and coffee, while others accepted postcards and telegrams which would be released upon our safe arrival in France.

We learned that the large, three-stacked steamer on the south side of the pier was destined to have us on its passenger list and we regarded it with interest. Next to the Vaterland, it was the largest of the great ships in the vicinity, and we learned

AMERICAN PRISONERS BEING QUESTIONED BY GERMAN OFFICERS

drawing alongside and making fast. Directions were shouted or signaled to them from the bridge, their lines tightened, and the Justitia moved slowly out into the Hudson and pointed her nose downstream.

At this interesting stage of the game we were all ordered below decks and below we went, but the majority caught an occasional glimpse of proceedings through our tiny port-holes. The great ship was throbbing now and we were gathering speed. On each side the sky-scrapers of lower New York and the low factory buildings of Hoboken drifted past and we found ourselves in the bay. Our hearts jumped a bit as the inspiring figure of the Goddess of Liberty loomed up and then faded from view and soon we saw only a sunlit expanse of water. America lay behind; France was ahead.

We reached the three-mile limit, where the convoy was assembling, about ten o'clock and were permitted to come on deck. It was a magnificent spectacle. Twelve giant steamers (of which the Justitia was, however, the largest) were assuming their formation. A United States cruiser had taken its place at the head of the column and off to each flank was a torpedo-boat destroyer. Encircling us, in amongst us here, there, and everywhere, were submarine chasers of the mosquito fleet and in the air above us were two hydroaeroplanes and a dirigible. While we were assembling, these planes and the balloon scouted in all directions for any signs of enemy periscopes.

At noon while at dinner the ship began to throb once more and we were off. After dinner we went on deck, with our life preservers now, for we were required to wear them at all times once we had left the three-mile limit. The planes had left us, but the dirigible was still hovering over the cruiser ahead of us and at odd intervals scouting to the flanks and far ahead. It was a peaceful scene, and except for the reminder of the life preservers about our persons it was difficult to realize that there was a mighty fleet of submarines attempting to spot the passage of every ship in the convoy on its journey to France.

Life on shipboard was very easy compared to the rigorous training to which we had been subjected in the preceding months of training. The only daily routine was boat drill, held once in

the morning and once in the afternoon, at which every man was required to report to his emergency station at one of the lifeboats and remain there until one of the ship's officers had checked up. It was at one of these drills that the Naval aviation officer in charge of the lifeboat next to ours, who seemed to be inflicted with an insatiable curiosity, prowled around his boat, which was hung over the side of the ship from the davits, and laid his hand on a lever in the bow of the lifeboat.

"What's this?" he inquired of a brother officer and pressed the lever. The next second the cry of "Man Overboard" went up and every one rushed to the railing. The boat was upside down in the wash of the propeller, and the officer, who was fortunately a good swimmer, had reached it and was clinging to it. And fortunately again, there was another transport directly behind us, which slowed down enough to reach him with a rope and haul him aboard, for it is certain that the Justitia would never have stopped to send a boat back for him. The lives of four thousand and the safety of one of England's largest transports depended on keeping her at a great enough speed to enable her to maneuver in case of emergency.

After this event the voyage was fairly uneventful. As a rule the sea was calm and at its worst only a bit choppy. Every fifteen or twenty minutes the convoy would change its course and the ships assume a new formation as a consequence, but these changes and the occasional passing of a returning convoy or single steamer were about all that afforded particular interest to the hundreds who thronged the deck during the day.

After the ship had been a few days at sea, one of the artillery officers of the 76th division inquired as to the possibilities of having some talks by engineer officers on artillery emplacements and dugouts. As the smoking-rooms were sufficiently large for such purposes, an impromptu class was arranged and some of the essentials in which the artillery was particularly interested were studied in detail and some practical features discussed by the engineer officers of the detachment. At the same time classes in French were conducted by French officers, who also organized a short course in trench warfare for infantry officers.

July 4 did not pass unnoticed; General Treat, in command of the troops, read the Declaration of Independence to the men and officers who had assembled in the forward part of the ship. General Donnelly spoke briefly, after which the band played such pieces as were requested by the men. General Treat was on his way to Italy for duty there; General Donnelly, as Chief of the 4th Corps Artillery, several months later, was again associated with the regiment.

Evenings were the best part of the day. As the sun sank in splendor in the western sky, the regimental band from the artillery organization which was on board gave excellent concerts. They played dance music at which the tall Westerners clasped each other in their arms and pranced about the deck, or they played low, soft music and the same men lined the railing and gazed out toward the setting sun — and home. And all the while the ships ploughed steadily on, dipping and rising, but moving steadily toward the east — and France.

About a week out, word made the round of the ship that we would pick up our British escort before night fell, and surely enough, in the late afternoon they appeared on the horizon and we joined them. They were destroyers of the most modern type — long, low, gray boats of a graceful slenderness and an incredible speed. They pitched and tossed in the waves which hardly made themselves felt on our great steamer, but they would rise on the crest of one and sink into its trough, out of sight, only to reappear again and go racing ahead or off to the flanks to search for the once dreaded but now hoped-for periscope. For with these watchful sea hounds on all sides of us (there must have been fifteen of them), we were very anxious for the sight of a little action.

We thought we had it when, one morning, just after we had sighted the coast of Scotland, and were pressing down the Irish Sea with Scotland off to our left and Ireland far off in the distance to our right, two of the destroyers went racing off toward the Irish coast and opened fire at some invisible object. They maneuvered around for nearly half an hour, keeping up a desultory fire, and then overtook us and took their places in formation. Rumor had it that they had sighted several submarines

A GERMAN PILL-BOX

and sunk them after a hot engagement. At any rate, we had something to write home about, for it was the first shot in the war for us, and now there were possibilities. It developed, however, that no submarines had been seen. The destroyers were firing on and exploding mines which had been laid by the Germans very recently, perhaps the night before, as they were well located in the channel. Had the giant bow of the Justitia just ticked one of these, there would have been ample opportunity to test the efficacy of our boat drills. These waters were particularly dangerous because of the protection the barren, indented coasts afforded the submarines.

When darkness came that night, we were well down off the coast of England, and when we awoke next morning the steady throbbing of the engines below us had ceased. We rose and opened our port-holes, which of course had been kept closed at night throughout the voyage to avoid the showing of lights, and there before us was land and a real city such as we had forgotten existed. A ferry passed us close to our ship and we saw a group of people smiling and waving their hands. And the strange part of it was that there were women in the group and men in civilian clothes. We hadn't seen either for thirteen days. There were no women whatsoever on the transport, and, though we had a fine collection of American, French, English, and Naval uniforms, civilian clothes seemed a thing of the past belonging to those days of long ago when we had been in the "States."

We had all risen very early and breakfast was not yet ready, so we went on deck and watched the strange scene with interest. We were lying in mid-river off the Liverpool docks and ahead of us and behind us were other ships of the convoy. Some of them were already at the docks and were becoming lightened of their troops and passengers. Numerous grimy little tugs were threading their way in and out of the shipping on all sides of us, and groups of two or three old men or boys were rowing light skiffs about, picking up tow and mooring lines and carrying them to their proper place and doing any number of little odd jobs that came up about the docks.

About eleven o'clock (it was the morning of the 10th of July), our tugs made fast and began to draw us through the narrow

locks into the network of basins which forms Liverpool's docking system. As we drifted slowly along through these, a great crowd of gamins followed us along the pier and scrambled for the pennies which were thrown them from the ship. A stout English "Bobbie" made slow, deliberate efforts to get rid of the gang, but when he had driven them off of the dock and around the corner of the building, up they would come again scrambling madly for pennies from around another corner of the building. Doubtless our sympathies were more with the gamins than the "Bobbie," for we would have hated to have our pennies lie idle, and so every flanking movement which was executed successfully by the gang was greeted with cheers and shouts of approval. And we were not at all backward about giving information as to the whereabouts of "Bobbie" to the gang either, which, however, did not seem to faze him particularly.

Early in the afternoon we had our packs and hand-baggage ready on deck for disembarkation, and a little later we received the expected orders. We formed on the dock and were marched through the streets of Liverpool to the Midlands Railway station, some distance from the piers. We received a royal welcome, particularly from the street urchins who coupled with their hospitality demands for American pennies, and would run beside us for blocks urging the backward among us not to fall short of their expectations of us.

When we reached the Midlands station a train of incredibly fragile-appearing compartment cars was waiting for us and we were lined up and apportioned throughout the train. We pulled out without delay and were soon going at an enormous speed for a train of cars and an engine that looked like toys compared to our monsters in America.

The evenings were long in England during that part of the year and the sun was high in the heavens at seven o'clock. We dashed through picturesque rural scenes, tiny cottages set snugly amongst a group of tall, richly laden trees, cows and horses peacefully pasturing in the green fields and looking up mildly to watch us as we flew past, and groups of clean, bright houses now and then coming within our vision and dropping behind again. We could hardly believe that this country of such peaceful summer

evenings could possibly be at war, and have a huge army on the field of battle only a few hundred miles away.

The sun finally sank to rest and the darkness shut from our reluctant eyes this vision of peacefulness. It was not long before most of us were asleep in the corners of the compartments.

The next morning before it was yet light we were awakened by loudly shouted orders to "get some speed up" and disentrain. We swallowed what little remained of the lunch which we had brought from the dining-salon of the Justitia, assembled our belongings, and stepped out on the platform of the station at Southampton. But a word of our splendid vessel before we leave her forever — five days after this time the ill-fated ship, on her return trip, was sunk by submarines near the Scotch coast after a long battle. It was understood that the Germans mistook her for the Vaterland and submarine officers had been instructed to sink her at the first opportunity. That they had been on the watch for her on the way over, we could now well realize. Our escort had been responsible for our safety and had been the means of preventing mishaps. Doubtless the ship's officers had known of the proximity of the U-boats, but the information was kept well guarded.

We were formed and marched out of the station into a steady downpour of rain. We were unaware of our destination; some had said it was a rest camp in Southampton; others that it was a pier from which we would cross the Channel immediately; but the former guess proved right, for we soon found ourselves upon a street over which were hung streamers bearing the legend "Welcome to our Cousins from America," and at the street crossings sign-boards indicated the rest camp in the direction in which we were going.

It was situated on the large city common at the edge of the town. Through the heavy July foliage along the edge of the road we could see long rows of low, gray barracks and interpersed with them groups of conical wall tents of the American type. British soldiers, some in khaki and some in the blue which denotes the wounded or hospital cases, were hurrying to and fro along the main road and in the streets between the barracks, and now and then we would glimpse the olive drab of the American uniform.

We halted before the Headquarters buildings and were divided into groups and placed in charge of a guide who took us to our respective barracks. They were merely bare buildings with wooden floors which were none too soft for sleeping purposes, but it was a relief to get in out of the rain and have a place to drop our belongings. Quite a number of us took out our blankets and tried to get in a little sleep before noon, but the combination of the hard floor and much activity within the buildings made it difficult.

At noon we were herded into the mess building. It was the last visit for the majority of us during the remainder of our stay there. The least said about the grub and the manner of serving it the better, but being British rations and British cooks it was far below the American standard.

It had cleared late in the morning and many of us went on trips of exploration, unauthorized though they were, into the various parts of the city. The residential section was perhaps the most interesting with its queer little cottages and gardens. Like the rural districts these homes looked very peaceful and it was difficult to realize that the war had touched their inmates.

We turned in early that night and managed to have no difficulty in sleeping despite the hard board floor. In the morning we underwent physical examinations, and early in the afternoon we were formed and marched down to the docks where we embarked on an old side-wheel steamer that looked as if it might have done service on some one of the smaller rivers of New England. Once we were all comfortably adjusted on board, the officials decided that the craft was overloaded and the enlisted half of the regiment were ordered off, and marched back to the rest camp for another day of starvation. They followed the next afternoon and the party was reunited at Le Havre.

The crossing was a rough one. We finally found out the reason for our scanty rations at Southampton, for as it was the majority of us were sick, and had we eaten more, conditions would have been even worse. The ocean during our crossing was like a millpond compared to the Channel that night.

We made port at Le Havre early in the morning of the 13th, but were not disembarked until nearly eight o'clock, when we formed and set out for the hike to another British rest camp on

the hill behind the city. We were more fortunate this time, as we were served American rations and life seemed worth living. Our quarters were conical wall tents in which we managed to make ourselves fairly comfortable. The camp was surrounded by a barbed-wire enclosure along which armed guards were posted and enlisted men were not allowed outside under any circumstances during our stay there.

We left Le Havre for the final stage of our journey on Sunday, the 14th of July, which is the national holiday of France. As we marched to the station the gayly decorated inhabitants flung us flowers, which some of us attached to the barrels of our rifles, and waved and cheered us on our way. It was a fitting prelude to our final initiation into the American Expeditionary Forces, which consists of a ride through France on the part of the enlisted personnel at least in the French box-cars labeled "Hommes–40: Cheveaux–8."

We found them on the tracks when we reached the station. In each car was stored three days' rations of "bully beef," hardtack, and other canned goods. Every enlisted man in the A.E.F. knows the cars only too well, so a description is necessary only for those who have had the good fortune to escape them thus far. They vary in size from about forty by eight to about thirty by eight feet, but this fact seems to make no difference in the capacity for men and horses, for the capacity signs are always the same. There are two sliding doors and two windows so arranged that when the door is opened the window must necessarily be shut, as the door slides by the window and closes the aperture. The roofs are seldom water-tight, which is a particularly nice arrangement in a country in which rain prevails greatly over good weather.

We left Le Havre late in the afternoon and had our first of a series of "bully beef" meals that evening. We had purchased maps of France at the station in Le Havre, so after supper most of us crowded around the windows or doors and by reading the names of the stations through which we passed we were able to trace our course on the map. We were greatly elated when having reached and passed a fork in the lines, we read the name on the next station and knew that we were headed for Paris. It soon became dark, though, and we turned to arrangements for sleeping.

We all found places where, by lapping our legs over the body or legs of another man, we could assume a semi-reclining position, except one man who had remained at the door until all of us were placed. When he turned, he could see not an inch of floor into which he could worm his tired body, so he closed his eyes and when the train lurched, which it did frequently, he fell and remained where he had landed despite the protestations of those beneath him.

It rained that night and the water dripped down from the porous roofing overhead, but we simply pulled our slickers over our faces and went back to sleep. The next morning found us in the outskirts of Paris. The train stopped in a railroad yard and we all tumbled out to a near-by water spigot for a wash and a shave. It was a clear day and we were in high spirits accordingly. Besides, we fully expected to be marching through the streets of Paris before the morning was over.

But we had no such luck, for the train started again with many jerks and spurts, and by halting and starting up again every few minutes soon worked its way around the very edge of the city, and by noon was speeding east at the unusual rate of six miles an hour, with numerous halts to steam up. From then on the ride was very interesting, as we passed through the agricultural districts of France and on all sides great rolling fields under intensive cultivation stretched away into the distance.

We remained on this train two more nights and in the morning of the 17th detrained at Gondrecourt, which was our final destination, except for Major Dean, who went to the First Army School of the Line at Langres. From the station we were marched up to the school, a distance of about a kilometer, where the process of registering and assigning us to barracks was begun. The officers were all assigned to a barrack on the officers' side of the post and the sergeants had one of the barracks in the enlisted men's area. School was not to commence until the following Monday, we having arrived on a Wednesday, so we had five days to rest and recuperate from our arduous journey of 3500 miles.

We were permitted to go into town and we made the most of that opportunity, particularly in the evenings. Most of our days, which were very warm, were spent in idling around our barracks

or in writing letters, as we had had little opportunity for writing on the trip.

On Monday, July 22, school was begun and continued for four weeks. For an hour in the morning we had infantry drill along new lines. We were told to forget what we had learned in the States, and in the execution of commands we were told to do anything that could be done regardless of whether the "I.D.R." authorized it or not. We soon entered into the spirit of the new drill and found it infinitely more interesting than that of the old.

Following the infantry work, we had a morning of engineer work, instruction in machine guns, automatic rifles, grenades, bayonet training, camouflage, or any other branch of service in military training that the weekly schedule might call for. The afternoons were run on the same schedule and the evenings were devoted, on the average of three nights a week, to study and the correction of notes and the other two nights we had lectures on some political or governmental phase of the war or some other equally interesting and absorbing subject. Our weekly schedule commenced with Monday morning and ended Saturday afternoon at five o'clock.

During the last week of the course we had two very interesting days of maneuvers under actual war conditions. Ball ammunition was used; machine guns and automatic rifles played their part, and the infantry advanced under a barrage fire from the one-pounders handled by the man taking the one-pounder course.

Saturday, August 17, was devoted to turning in of equipment and the assuming of our belongings, and on Sunday we marched down to the station in Gondrecourt, with the band in the lead, and entrained for the Army Bridge School at Langres. The officers occupied first-class coaches for this trip and the sergeants had plenty of third-class compartments as only the engineers were on the train. We reached Neufchâteau at about ten in the morning and were told that we could have the liberty of the town until the train left for Langres at seven that evening. Our cars were put on a siding and left there to be picked up by the evening train, and leaving a few volunteers to guard them the rest of us made our way into the city.

At five o'clock about half of the party, tiring of the rather dull

town, made their way back to the cars and made themselves comfortable there. At quarter past five they began to switch us around a bit and the first thing we knew we were going at a tremendous speed away from the yard. It slowly dawned on us that some one had made a mistake in the time, but it was too late to worry about it, so we made ourselves comfortable in the half-full compartments, expecting the rest to follow in the next train.

We reached Langres just before noon and went to the casual barracks near the station for our noon mess. A little while later some trucks from the school came for us and we piled in and drove out to Fort Saint-Menge, a distance of eleven kilometers. Imagine our astonishment to find the men we thought we had left behind at Neufchâteau were already at the fort and had been there since midnight of the previous night. They had taken an express when they found that we had gone, and beat us to Langres by several hours.

The fort itself was one of the most interesting things we had seen since our arrival in France. The fort was built by the French during the Napoleonic wars and had formed one of a string of them about Langres, their purpose being the defense of the city. It had been reconstructed during the latter part of the nineteenth century and is now in a fairly tenable condition. It consisted of a series of intersecting masonry tunnels built into the crest of a hill which were surrounded by a moat and fortified gun emplacements. A drawbridge formed the only means of entrance for vehicular traffic, though there was a light footbridge connecting the rear part of the fort with the arc behind, in which there were barracks for the officers' quarters and a Y.M.C.A. building. Within the fort were casements with iron double-deck cots, and in these the men were quartered, while on the same level with them in the masonry arches were the kitchens and mess rooms. The entire fort had been taken over by the Americans as the site for the Army Engineer School, and additional barracks were being built a short distance from the fort, for the Gas School and for the Engineer Officer Candidates' School.

The officers of our detail were assigned to their barracks in the rear of the fort and the sergeants were assigned to their casement.

Baggage arrived and was distributed and a very good dinner eaten, after which many of us explored the fort.

The next morning the school work started with a lecture on bridges by one of the instructors and in the afternoon we hiked the six miles to the polygon for preliminary instruction in light footbridges. The next two days saw us at the polygon for the entire day for instruction in the method of using the French ponton equipment and also in the building of permanent and demountable bridges. On Friday and Saturday mornings we had lectures covering methods of computing bills of material, size of lumber, etc., and on Saturday afternoon we were taken for a walk along the canal where we had pointed out to us the various types of French masonry arch bridges. Following this some made trips to Langres for the week-end, while others returned to the fort.

On Monday an examination was held covering the week's course and upon its completion we assembled our belongings once more and loaded them and ourselves on trucks in which we rode down to the station. We were greatly elated when Captain Pease joined us after his interview with the R.T.O. and said that we had been routed through Paris on our return trip to join our regiment at Saint-Amand in central France.

We took the train at four o'clock the following morning, after having spent the better part of the night in the station, and reached Paris, in the Gare du Nord, a little before noon. We registered with the Provost Marshal and turned loose in the city. Beyond the fact that most of the officers put up at the American University Union on Rue de Richelieu and that the sergeants stayed at the Hôtel de Pavillon, there is little to be said about our stay in Paris for that is an individual history and does not concern the history of the detachment.

We reached Paris at noon on Tuesday and we left for Saint-Amand from the Gare d'Orléans on Thursday morning, reaching Saint-Amand about four in the afternoon of the same day, the 29th of August. Trucks were waiting for us at the station and we proceeded to Drevant, a small village near Saint-Amand in which Headquarters were located, and reported for duty. We were immediately distributed to our various companies and the Advance School Detachment was no more.

CHAPTER II

AT SEA

It was about ten o'clock on the morning of July 14, 1918, that the giant transport Katoomba bearing the 301st Regiment of Engineers was towed slowly from her dock and headed downstream toward the harbor. The huge engines amidships throbbed gently, and under her own power she steamed slowly down the river and into the harbor, leaving behind her the tall sky-scraping buildings of Lower Manhattan, and felt her way cautiously through the Ambrose Channel. Many eyes were turned toward the silent, symbolical figure of the Statue of Liberty, as they first caught sight of her in the distance and watched her pass and fade away in the mist behind them. It was the regiment's farewell to America as it started on its voyage through a mine and submarine infested ocean.

Shortly after noon the throbbing of the engines had ceased, indicating that the rendezvous, at the three-mile limit, of the various other ships of our convoy and escort, had been reached. As the troop ships assembled, they were enclosed within a cordon of destroyers and submarine chasers which now and then darted out to the flanks and searched for the least sign of a venturesome periscope. Overhead a dirigible and several sea-planes were watched with interest as they glided or dived back and forth over the surrounding expanse of water, aiding the destroyers in their constant search for enemy craft and signaling to one of them in case anything suspicious was sighted. Far out in the lead of the assembling convoy rode the battleship Montana, grim and silent, but watchful. It was difficult to watch her rising and dipping in the light sea without feeling a thrill of pride in the majesty and strength of the American Navy and of the Nation which fostered it.

The convoy was finally assembled and every ship had taken her place in the formation. Individually and collectively they presented an amusing spectacle of advanced futuristic art. There

CAMOUFLAGED TROOPSHIP

were eleven transports in the convoy, and each one of these, with the exception of the Katoomba and her sister ship, was fancifully decorated with variegated bands and dashes of black and white, yellow and green camouflage. It was difficult to see at close range with just what design or system the ships were camouflaged. In fact they did n't appear to be camouflaged at all, for they were far more conspicuous, decorated with the crazy-quilt patches of bright colors, than they would have been in their undress uniform of sober gray. But by the time we had put to sea and the ships had assumed a more extended formation, the reasons were easily apparent. Despite the troop's familiarity with the ships and the formation, they were constantly being confused and deceived as to length, direction, and speed of the various members of the convoy. The collier had the appearance of reduced length and indefinite direction; others of the convoy appeared to be moving at varying angles from the true course; and yet others had their funnels and hulls decorated in such a manner as to cause one to believe at first glance that they were traveling in the opposite direction.

It was not long after the convoy assembled before the flags were run up on the halyards of the Montana and the convoy was under way. Before long the last gray stretch of land had sunk over the horizon, and there came into the heart of every man in the regiment a realization that, after many long months of training, the organization was at last started on a journey which would inevitably end on the battle-fields of France. With it came a tinge of homesickness and a short moment of longing for peace and home folks once more. But mess call is a great antidote for homesickness and dreams faded as a scramble for mess kits commenced.

The serving of mess to two thousand men from two galleys is no mean task, but a system had been arranged and was successfully carried out. A detail of men from each company reported to one of the two galleys a few moments before mess time and carried the big basins of food to the company decks for distribution. After the first meal, however, when the sea became somewhat rougher, the mess line grew shorter and shorter, and in some instances one of the less seagoing members of the detail paused, during the trip from galley to mess deck, to wonder at the neces-

sity for food when one's stomach was in such a turmoil. A few minutes later scouts from the affected company would be scouring the ship for the missing carrier, and, though they would occasionally find the mess, the carrier himself was generally nowhere in evidence. Two or three days later he might show up with a haggard, "don't-care" look in his eyes and with a ravenous hunger in his stomach.

After each meal, tables, benches, and decks were scrubbed and scoured and inspection made by company mess officers. Defects were remedied and everything was ship-shape before the detail was dismissed.

The officers and the staff and company non-commissioned officers above the grade of color sergeant, were called to the first-class dining-salon by the racket from the beating of a large brass gong by Jerry, the ship's cabin boy. The dining-salon was below decks and, as the ship's officers satirically remarked, "right on the water-line just forward of the boilers and one of the most likely places for the reception of an enemy torpedo." The officers occupied one section of the dining-salon, while on the other the high-ranking non-commissioned officers enjoyed their frugal though well-cooked meals.

At night no lights were permitted and no smoking on decks was allowed. Just before the convoys' departure, submarines had sunk two fishing smacks off the New England coast, and, as a result, the first night out found the same strict discipline regarding the showing of lights and the wearing of life-belts that existed in the "submarine zone." Life preservers had been issued to all and were worn at all times except in actual sleep, when they were kept close to hand. A guard was established to maintain discipline and traffic regulations throughout the ship and to provide for lookout posts and gun crews to supplement those already assigned from the crew of the ship. The guard was established about noon of the first day out and consisted of thirty-six men, but when informal guard mount was held in the afternoon of the next day, the number of posts had been increased and the detail included three platoons. Eight of the twenty-three posts were designated as submarine lookout posts and the men on these posts were directed to give alarm upon sighting of any object which might resemble

a periscope or the wake of a torpedo. These were posts of great responsibility and the men of the highest caliber were chosen for them. Next in importance came the bulkhead guards for the alarm for the "alert"; they were required to remain at their posts in the various parts of the hold of the great ship and to make sure that the heavy steel doors had been tightly closed and fastened. Other posts included the traffic guards in the passages and companionways and the various posts at the latrines, water-taps, and entrances to the salons.

Stations were assigned to every officer and man on board and to every member of the crew, to which they were expected to repair in an emergency and during boat and fire drills. A repeated sounding of "high G" on the bugle was the signal for boat drills, which were held at least once a day, and oftener during the passage through the danger zone. At the first note of the instruments buglers in the other parts of the ship would immediately grasp their bugles which they always carried with them and repeat the call. To make sure that no one was left below, officers and N.C.O.'s were assigned to a section of the docks and were required to make sure that every man in that section was at his proper station. At first there was a great deal of confusion, but this mostly showed the necessity for systemized drill, and, after the first few days, every man was in his proper place five minutes from the first bugle call. Occasionally fire drill was substituted for boat drill. The signal for fire was the sounding of "high G" on the bugles and the repeated ringing of the ship's bell. In this as in the boat drill the troops went immediately to their emergency stations and the ship's crew took their stations by the fire hydrants, with their hose in readiness for action.

The weather, with the exception of a few days, was ideal and the sea was never particularly heavy. The only variation of the monotony of the voyage was the shrill, excited cry of the bugle for boat or fire drill, at which the men, having reached their places, would nonchalantly watch the maneuvering of the convoy and the steady rise and fall of their own vessel until the check had been made and they were dismissed.

There was a Y.M.C.A. secretary on shipboard who did much for the men in the way of entertainment. He had been in France

and at the front and was returning there after a visit to the States. He narrated his experiences to interested groups of listeners and distributed books and writing-paper to all who asked for them.

The band, quite often in the afternoon, would give a concert, playing soft, doleful music for members of the crew who ventured to put on the gloves and raise them against the regiment's best boxers. Many good bouts of this character were staged by the Athletic Officer, but the best were those between members of the regiment in which the band would play crashing marches and the regiment would divide itself into two halves according to the popularity and ability of the contestants.

During the early days of convalescence from seasickness, the prospect of boiled mutton or stewed rabbit did not appeal particularly to the men. The purser had proudly informed the officers that the meat for these delicate dishes had been brought from Australia on the Katoomba's maiden trip. None of the officers doubted his words at all, particularly after they had tasted the meat, though the Katoomba did not seem as old as that.

Now was the time for the ship's canteen to reap a harvest, and it made the most of its opportunities, for while the quality of the men's food sank lower, the prices on canteen foodstuffs soared higher. Oranges sold for fifty cents apiece, and plain crackers, tonics, and such articles were sold at proportionately exorbitant prices. In one instance, a detail of cooks from one of the galleys was allowed to enter the galley and make up a batch of doughnuts for the men. The job was completed and the cooks returned, but long before the meal was due American doughnuts appeared for sale at the canteen at twenty-five cents apiece, and were rapidly disposed of. The cooks wondered at meal-time where the doughnuts had gone, but after a few questions they were not long in doubt as to their disposal. The American soldier ordinarily keeps a tight lip when he is cheated but here was a system that, so far as the men themselves were concerned, could not be beaten and a report was made to the proper authorities. The chief steward was questioned and reprimanded and, with his ire at the boiling point, he descended into his realm below and summoned his able assistant who meekly stood and cowered before the wrath of his superior. The steward waxed eloquent denouncing the graft

practiced at the expense of the men, and grew so excited over his subject that he overstayed his time on duty and neglected to claim his half-hour's overtime, an unheard-of negligence on the part of a member of the "Stewards' Trust" as it was called by the indignant troops. The second steward, not to be outdone by his superior, called into the canteen a wily Scot, who averted the impassioned lecture on justice which his overlord had planned by calmly pointing to the ship's clock at which harsh words and the doughnut episode were forgotten and the bottle of friendliness produced and consumed.

The canteen and its methods created an intense feeling of dislike in the men for the "Jickies," and this feeling was added to by the insistent begging of the street gamins, upon landing, for pennies, nickels, and dimes. The whole thing was unfortunate, as the men carried away a false impression of their English cousins, which had been gained from the only two classes with which they had come in contact, the street gamins and the mercenary members of the steward's department on board their transport.

The convoy had seemingly explored the Atlantic from the Gulf Stream to Iceland, during the week that had passed, and all sense of direction or position had become vague with both officers and men. However, on the seventh day, when the battleship Montana turned, doubled on its tracks and, bound due west, disappeared on the horizon, all realized that they must be approaching the British escort which would meet the convoy. Sleeping was fitful that night, for the Montana had stood for security somehow, and early the following morning the submarine guard was increased by a few hundred volunteers who anxiously lined the railing and scanned the sea for a sign of either submarines or the British escort, sincerely hoping that the latter would appear first.

Fortunately it did and the slim little destroyers were a source of great interest to all on board. They raced from point to point, pitching and tossing in the waves, but always moving with an incredible speed. Every one decided that if he had a bit stronger stomach this would be a great sport.

The next morning wild cries of "Land!" sounded through the ship and every one crowded to the rail, straining his eyes through the mist to get his first glimpse of land; and, sure enough, through

the curtain of fog loomed tall black cliffs. They were the cliffs of the southern coast of Ireland and not a Murphy or a Casey on board but felt a little tugging at his heartstrings as he caught his first glimpse of the homeland of his fathers.

That night orders came to sleep with "full pack" close at hand, as the convoy was in the most dangerous section of the submarine zone. Even though the alert destroyers were guarding the convoy, it was deemed advisable to be prepared for any emergency.

Dawn found the convoy at the mouth of the Mersey River and the ships in single file. As the great transports entered the river, pilot ships drew alongside and the pilot swung himself up the rope ladder and aboard. From then on the file of steamers seemed to be following the leader in a snake dance from bank to bank of the river. All considered themselves lucky to have a pilot who knew his business, however, and none objected to this winding course when it became known that such a course was necessary in order to avoid the mines and submarines net.

About noon the convoy was safely within the harbor and in the groups on decks could be heard the "brave" ones wishing that they had seen a submarine, while others shouted to the crowds on the passing ferry boats, or, better yet, scanned them minutely with field glasses and discussed the respective quality of the one with the red blazer and the one with the blue. Then, too, much excitement was caused by a battered tug steaming alongside and discharging a crew of grimy stevedores, who, despite the grime, proved by their faces that old England was still "merrie." They soon had the hatches open and all gear in working order for a rapid discharge of cargo, and stood chaffing good-naturedly with the troops. In the meantime the ship was being persistently pushed into dock by a small tug, the gangplank was hauled on board, and all knew that the first stage of the journey was over.

CHAPTER III

DEBARKATION

While a boys' band on the dock played stirring airs, equipment was retrieved and packs were rolled, following which companies were lined up by their first sergeants in a space which would ordinarily have been assigned to a platoon. At last came the order to debark, and in single file, their hobnailed shoes slipping on the wet gangplank, the men moved down the passageway and were formed by companies on the stone dock. *Terra firma* beneath one's feet was a welcome feeling after thirteen days at sea.

With the band playing gay tunes at the head of the column, the regiment started on its march to the Exchange Station. In America, at least, whenever there is a semblance of a parade, there is always a crowd to watch it, and in Liverpool there was no exception to the American rule, for on the entire march through the streets of the city a gang of children of all ages and both sexes fastened themselves to the regiment and individually ran from soldier to soldier with the expression, "Gimme a penny." The children got pennies, and when the pennies ran out, they got nickels, dimes, and quarters until their pockets bulged with coin and childish wealth. This scramble lasted until reaching the smoky Exchange Station, and here all minds were taken up with the curiously small side-door or compartment coaches. The pompous station-master with his tall silk hat walked majestically up and down the length of the train, unknowing that at any moment he might become a target for the mischievousness of the irrepressible young Americans. However, his dignity and austere countenance seemed to demand respect and so it was given him.

With no confusion the 1st Battalion was loaded on the waiting train, and soon afterwards pulled out of the station. The 2d Battalion followed in another train which cleared Liverpool about nineteen o'clock, and, as the soft English twilight lasted well into the evening, there was an opportunity to see much of rural England. Ever curious and interesting to the American eye were the

quaint brick farmhouses with thatched roofs and the fields bounded by hedges with an incredible trimness. Every inch of ground seemed to abound in cultivation; this was a condition of which the regiment was to see much during its travels through England and France. But from the otherwise peaceful condition of the countryside, there seemed to be no indication that England was at war. But one realized it when it became darker and when one read the sign warning within the compartment that the shutters must be kept down whenever the lights were lit because of danger from air raids.

At Manchester the train stopped long enough to allow the men to be served coffee by the women members of the British Red Cross. This attention on the part of our English friends was very much appreciated, largely because the night had turned cold and damp.

The remainder of the journey was uneventful, and about six in the morning the train drew up at the station in Winchester, and in no time the regiment was marching through the crooked and narrow streets of that historic town, and climbing the hill to the rest camp.

The camp proved to be the training ground of "Kitchener's Mob." The locality may well have had some psychological influence over the troops which passed through the training camp, for already several of the regiments of America's "Boy Scouts," which a few months before had been through the camp, were turning the tide of battle in the vicinity of Château-Thierry.

The camp itself was a part or section of the larger British camp, situated close by, and was composed of the usual corrugated iron barracks and conical wall tents which are found in the British camps. The officers and men were allotted rooms and barracks respectively, but though the term "room" raised high hopes in the minds of the officers, they soon found out that the term meant "tent."

After the all-night ride in the close and crowded compartments, much of the morning was used to make up lost sleep. No passes into town were issued to the enlisted men, though the officers were allowed to visit it and make whatever purchases were desired. In the afternoon the men were marched into the

city and taken to the points of historical interest and to the larger shops, where things necessary to their comfort could be bought.

The next morning the regiment left the rest camp and again entrained, this time for Southampton. After a short ride the men landed in the busy Channel port and were marched to the docks only to be informed that they would have to wait there until dark before embarking on the swift Channel boats. Packs were unslung and the men fell out, but were ordered to remain in the immediate vicinity. They undoubtedly remained in the vicinity, but it was in the vicinity of a large canteen which ably supplied their most pressing needs. The day passed swiftly, and late in the afternoon the regiment was embarked on two of the steamers at the dock and the men were ordered to don the much-abused and worn-out life preservers. Shortly after seven, our convoy of small but exceedingly fast boats made their way down the winding passage of Southampton Harbor and started across the Channel. Strange to say, it was not rough, and, although the air was cold, many preferred to stay on deck to going below where it was warm. In a darkness that was a protection against submarines, though a cover under which collisions were likely, the convoy churned out through the night and at daybreak entered the harbor at Le Havre.

The march through Le Havre to the rest camp is one which will never be forgotten. Here were seen the first Boche prisoners working contentedly enough in the railroad yards, and much to the surprise of the new American troops they were loosely guarded. The weather was exceedingly hot, the streets were dirty, and the gutters filled with refuse. Little push-carts with a tugging dog beneath were the cause of much comment and whistles that were intended to be distracting, but the hard-working, mangy beasts paid no attention. The city was crowded with red-faced "Tommies" and Australians with their turned-up hats, Belgians in their heavy-looking uniforms resplendent in tassels and bright patches of color, and "poilus" on all corners watching the column with grave faces. Here again were seen the patriotic Waacs as "motor-women" and "conductorettes" on the trolley cars. At last one could not help but realize

that there was war. The rest camp was situated, like the one at Winchester, on a hill a mile or two outside the city, and was typically British. Tents were assigned to the men. Flies were everywhere, and, as nothing was screened, it made a striking contrast to the strictly military and sanitary camp in the States that the men had just left. In this camp no one was allowed to leave the area, but there were canteens near by to supply the needs of all. The men were benefited by these and the sleep regained after the trip across the Channel.

The next afternoon the regiment, minus Company "F," left the camp and marched again through the city to the railroad station to be introduced to the French system of troop transportation, notably "Hommes–40, Cheveaux–8 (en long)." Men were squeezed into the box-like cars and travel rations issued to each car according to the number of men. The officers were crowded into second-class carriages which had evidently seen much service and could be easily found in the dark by merely "following one's nose." With the tootings of many shrill whistles and wild gesticulations of the train guards, the long train bumped and jerked outside the yards. After a run of perhaps ten kilometers, one of the cars developed a hot box. This must be an occurrence of grave importance, for the whole train crew assembled in the vicinity of the unfortunate car and evidently discussed the best way of cutting it out. After a half-hour of discussion and songs, some method was approved, and once more the train bumped and backed and jerked and went forward, and by midnight everything was ready again and the journey was continued.

"A" COMPANY'S CASTLE AT COLOMBIER

CHAPTER IV

IN SAINT-AMAND, MONTROND

A TWENTY-FOUR hour ride through the countryside permitted an extensive view of interior France. At this time of the year the landscape was vividly green and everywhere dotted with well-kept farms, many of which were fairly large and had a prosperous look. The journey had been accomplished in the familiar box-car with its interchangeable capacity for horses and men, so when in one town American soldiers were seen forming up for mess, it was not altogether with regret that the end of the journey was anticipated. As the train moved slowly through a village, some soldier asked where the newcomers were from. "Camp Devens," some one said. "Well, this is it," was the answer, and, with the appearance of familiar faces on the platform, it was known that the regiment was again with the 76th Division.

Finally, the train halted and all were ordered to sling equipment, pick up the fragments of the rations, and leave the train. A look at the station sign told us that we had arrived at Saint-Amand, Montrond (Cher), and by a glance at the map, we were assured that we should sleep that night uninterrupted by shell-fire, for we were in the geographical center of France and some two hundred miles from the nearest front.

As evening approached, the various companies, with the exception of Company "F," which had been left at Le Havre to do guard duty for one day, and the Engineer Train, which was traveling alone, lined up and marched off to a large field near the freight yards, where tents were pitched for the night. The next morning after mess, everybody struck out for the Cher River to enjoy a dip in its muddy waters and a shave on its hot sands.

About noon the various companies began to move to the little neighboring hamlets where they were to be billeted: Headquarters Detachment and Company "C" to Drevant; Com-

panies "A" and "B" to Colombier; Company "D" to La Groutte; and Company "E" to Poiseux. Company "F" came in the next morning, and after sprucing up in the Cher River at Saint-Amand, they too marched off to Saint-George. It was at this point that we got our first taste of a summer day in France, and though none of the companies marched far or carried packs, nevertheless they were all greatly affected by the change in climate.

On reaching the towns that were to be called home, the first man to greet us was the billeting officer, an American lieutenant who spoke French. The word "billet" has only sprung into prominence since the beginning of the war, and yet it has a taking sound for the American ear. At home we had heard of billets in magazines and movies, and naturally all were interested to find just what sort of a billet we should draw and what we should have to tell concerning it in the first letter. Billeting proved to be a slow job, but by late afternoon all were quartered, and if one were looking for the sensational, he did not have to scratch very far, for men were put into kitchens, barns, haylofts, sheds, and a few fortunate ones had parlor floors. Extra beds seemed to be few in France. However, the barracks bags had arrived, and each man got out a bedsack and filled it from the plentiful supply of straw. At least no one suffered for a full bedsack and an army blanket, one being amply sufficient to withstand the rigors of midsummer night in France.

Drevant, Headquarters of the regiment, is situated on the site of the ancient Roman city of Deventum. In and about the present town are the foundations of what evidently were fine edifices. The amphitheater is the largest and best preserved of these; the arena and walls are almost intact, and several tiers of seats for the spectators rise to a height of eighteen or twenty feet. As the result of the efforts of the French Archeological Society the Forum, with its Basilica, markets, and buildings, has been excavated.

Company "A" proved to be the most fortunate of all in the matter of billets, as it was located in an old château which was large enough to billet the whole company. After cleaning this out and putting it in shape, life for them was similar to that in

THE ROMAN AMPHITHEATER AT DREVANT

Devens; in fact, in some ways better, for no matter how high the thermometer would rise, it was always cool in the château.

The old castle had survived centuries of strife and revolution and was still in an excellent state of preservation. It was the chief point of interest in the neighborhood and at all times attracted visitors from other units of the regiment, who wandered through the old corridors and vaulted chambers. As the story goes, the château was built in 1205 by some French prince, whose name is no longer remembered. It was just the kind one reads about in romantic novels, with its long lane of approach, up which many other soldiers of other days perhaps had strutted before now; the remains of the moat, the high protecting wall, the courtyard, the turrets towering aloft, and, most important of all, a dungeon. The prince in his old age was said to have gone mad and many deeds of violence had been committed at his command in this same dungeon.

The new commander of the castle, Captain Trott, decided that, as the dungeon had served so well in the past, its purpose might be continued, and, though its present use was less romantic than its original one, as a guard-house it well fulfilled its mission. It was down in the cool, moist earth, and the large rough stones of which the masonry was composed were covered with drops of moisture, which glistened faintly when touched by a ray of light from the one cobwebbed window near the top. In general, one or two nights here by an offender, during which time the undisturbed solitude afforded ample opportunity for thought, was sufficient to make him wary upon the occasion of the next engagement to indulge over-freely in the wine of the fair valley of the Cher. But from this it must not be inferred that there were many offenders. In the States the War Department had disposed of the liquor question, and abstinence had become the fashion among all arms of the service. On reaching France and finding limited restrictions, the temptations proved too great, and there were some who were not merely content to sample the wine. Moreover, these wines seemed to affect the men in a different way than did the equivalent to which they were accustomed at home. After the novelty wore off, however, and regulations were established, this condition greatly diminished.

The first morning began with a downpour of rain and every one got a slight inkling of what European mud is. This was not encouraging, as the natives assured some of our French-speaking comrades on the night previous. This was the dry season, they said; slickers would be of no use until late in September when some severe thunder showers put running water and other modern inconveniences into the pup tents. And many times, on long, hot, and dusty marches, was the need of rain really felt without signs of it.

The first few days were spent in policing the various villages and the Old-World streets and in trying to teach a few American ideas of sanitation to the inhabitants. In this work we were successful to a great extent, but there were some things too sacred to these people to allow of our touching; as the family dung heap. A portion of these days was also devoted to personal policing; at every hour of the day could be seen, in a certain spot on the banks of the river, lines of men washing clothes and swimming and bathing.

A touch of American enterprise was responsible for the rehabilitation of the town clock. It seems that long, long ago the tower clock on the little old church refused to perform its duties and left the villager in the dark as to the correct time. One of the clever clockmakers from Headquarters disliked seeing two o'clock from Reveille to Retreat, and one day climbed up and found the difficulty, which he soon remedied, and, in addition, shined up the face and hands, so now the little village clock performs its labors as all well-regulated timepieces should.

During these same days every one was busy in free time trying to converse in French. At every cross-road and in public squares soldiers could be found with a book in one hand and the other waving frantically at some bewildered Frenchman. In most cases the general impression seemed to be that better results were obtained by conversing with French maidens, but it was also noticed that the real students chose children as their instructors.

On Sunday, August 4, the entire regiment assembled at the old Roman amphitheater in Drevant where Cæsar's soldiers were wont to applaud the Roman gladiators some few centuries ago.

The walls of the ancient Coliseum reëchoed with the shouts of approval of the various contests, but never was excitement more intense than when the "Samsons" lined up for good old tug-of-war.

The strains of "The Missouri Waltz" have died away and Company "A" has taken its stand at one end of the rope; Company "B" grasps the hemp at the other side of the stake. Each company is holding its own; a second later and "B" gives way just the shadow of an inch, but it gains a footing once again, and this time "A" gives, and campaign hats go sailing through the air; the onlookers can hold their seats no longer; shouts of encouragement fill the arena as the rival teams sway back and forth; at length the battle is lost and won, and Company "A" carries away the ribbon after a series of terrific lunges that literally take their opponents off their feet.

Next on the programme came the rescue races, followed in turn by sack and potato races, all of which were sources of great amusement. Always there were boxing bouts, some clever, very clever, and others laughable, but all in all, entertaining, even though the frequent cry, "Take 'em off!" in lieu of "thumbs down," was often heard above the plaudits of the crowd.

Previous to our occupancy of the old amphitheater, it had never been used as long ago as the oldest inhabitant could remember, but had been carefully preserved by the townspeople as a relic of the past. In view of this fact permission to use it was interpreted as strong evidence of a hearty welcome to the regiment. Not alone was this relic sacred to the natives, but sacred to us for the happy moments afforded therein. The performance ended with the singing of our National Anthem and the French "Marseillaise," at the conclusion of which short services were held by the Chaplain. Falling in on the stacks, arms were taken and the men marched off to Regimental Parade. The sun was just sinking behind the hills as billets were sought, after a day well spent.

On Monday, August 5, the training for the front was renewed by following schedules which closely resembled those at Camp Devens, and included close order, open order, gas training, bayonet exercises, and problems in minor tactics. While the work itself proved familiar enough, the climate was decidedly novel,

and on days when the mercury hovered about 110 degrees one could not help pining for a little of that cold that had numbed us in camp during the previous winter. A little relief came with an order that drilling should be done in blue jeans. This ruling did not include Regimental Parade, and so, on three days each week, we bundled up in blouses and paraded down to Drevant during the hottest part of the day and there, in the hot sun, boiled away at "Present Arms." Open order presented difficulties and was the cause of many an ache and pain.

To add to the troubles, the Quartermaster Corps at Saint-Amand was not able to take care of us in an approved fashion, as they had just taken station there and had not had time to get their affairs running smoothly. Mess became a serious event, and not a mess sergeant in the regiment can look back on happy days in the vicinity of Saint-Amand. If Mr. Hoover could have looked in on the mess lines, he would have wept with joy, for we of necessity followed his teachings for a considerable space of time. Each evening the roads to Saint-Amand were lined with the men, who, even after a hard day of drilling and marching, would hike from four to five miles for the purpose of sitting down to a dinner of steak, *des pommes de terre, du pain,* and *du vin,* visit the Commissary, or make a raid on the Y.M.C.A. Some of the more fortunate members of the command were able to make deals with owners of donkeys and carts, and their evening trips to Saint-Amand were real pleasure rides, for the proud possessor of a Ford was never more envied than were the occupants of the donkey cart.

Sunday, August 11, was the occasion of a performance in the amphitheater, but the games were of secondary importance, for this was the day when the Commanding Officer made the announcement that we had been made Corps Engineers, and were no longer attached to the 76th Division, and that we were soon to go to the front. No one present will ever forget the reception of that announcement — instantly a shout went up that could be heard for miles, hats went into the air, and there was a general uproar. At last it was known that our hard labor and drilling had stood us in good stead, that we were to stay together and go to the front as a regiment.

GROUP OF OFFICERS AT DREVANT

It was at this time also that our first overseas mail came in with about a handful of letters per company. Happy, indeed, were they who received the welcome epistles, but the great majority had to wait until a later date to experience the delightful sensation that only a letter from home can bring to a soldier in a foreign land. In connection with mail, it is altogether fitting to devote a few words to the poor censor, whose duties had already begun. He, indeed, was a busy man, for not as yet had the lesson been learned as to what could and what could not be written or sent. It was not to be wondered at that the benefit of the Base Censor envelope was always well advertised on the bulletin board.

A regimental N.C.O. school was organized in Drevant, to which each company sent chosen N.C.O.'s. This school was conducted by officers with the Engineer Field Manual as a text. N.C.O. schools were also established within the company, these drills being based on the I.D.R.

The regimental baseball league was reorganized and many interesting games took place at Company "A's" field at Colombier. The supremacy of the outfit finally simmered down to Companies "A" and "F." Company "F" succeeded in winning the last game before we entered the great game, but the vanquished never conceded to them the championship, as Company "F" had some advantage in the matter of equipment. The officers of the regiment also organized teams and uncovered a bit of talent in the game.

On August 7 the Engineer Train pulled into Drevant, where they took up billets. For some days they entertained the rest of the regiment with startling tales of hair-raising escapes from submarines. They had not been in our convoy, having started a week before the rest of the regiment, not arriving until a week later, thereby obtaining two full weeks in which to experience all those things which we did not.

After two weeks of drill, during which much time was given to reconnaissance, scouting, patrolling, and advance guard work, problems in minor tactics were scheduled. These involved many of the principles in use at the front, yet were based on our own methods.

The regiment was completely outfitted with gas-masks, and after two weeks of hard drilling in this most important defensive operation, all passed through an improvised gas chamber filled with lachrymatory gas. The object of this test was to fit the new masks, their perfection, and to overcome any timidity on the part of men who had recently joined the regiment too late to pass through the rigorous gas training at Camp Devens.

On September 3, Companies "C" and "F," which alone were not on detail, set out in the late afternoon with full packs, rations for two days, and such equipment as was necessary for bivouacking. Company "F" bivouacked at Pont Canal de la Tranchasse, about two kilometers from Colombier, and "C" Company spent the night above the aqueduct on the banks of the river Cher. Upon arrival at their station, tents were pitched, latrines dug, guards posted, a picket line established, and all other necessary details were worked out. Rations were cooked individually, and conditions were assumed to be the same as at the front. In the morning camp was broken, and each company returned to its station.

Company "B" was the first of the regiment to receive a detail, and moved on August 5 from Colombier to Saint-Amand, where they were billeted. On August 14 they began the work of clearing a site for warehouses, grading, and leveling the ground. The work consisted of installing a drainage system on the sides of the warehouses, and the erection of two buildings five hundred feet by thirty feet. The lumber for this work was hauled from Bruère by auto truck, and it was delivered to the company by the 29th Engineers, Forestry Unit.

On August 16, Company "D" proceeded from La Groutte to La Celle, and there reported to the 303d Infantry, for whom they built the rifle range. One half of the company moved from La Celle to Orval, where, on August 28, they began the erection of a Classification Camp. One platoon from Company "D" and one from Company "C" began erection of sectional barracks on the high ground west of the town. On August 25, eighty men from "C" Company were attached to Company "D," to assist in the grading and the carpenter work. Company "E" left Colombier on August 19 and hiked to Châteauneuf,

VIEW OF FLIREY — ROAD TO LIMEY

there reporting to the 304th Infantry for whom a rifle range was built. On August 25, Company "A" was ordered to march to Chambon, a distance of twenty-two kilometers. As the day was extremely hot, the Captain decided that the men should travel comfortably, but a search through all the General Orders for the past year revealed no permission for such kind treatment, and the hike was performed in blouses, and though army orders forbid criticism, they cannot prevent thinking. Headquarters Detachment, Engineer Train, and Company "C" remained in Drevant and Company "F" in Colombier.

The entire work on the various ranges was done by the 301st Engineers, as the infantry regiments had been depleted by draft to merely training units. All the lumber which was used for facings and revetments had to be cut and hewn. These labors continued until September 9, when all the companies except "E" assembled in Saint-Amand, paraded, and were reviewed for the last time by Major-General Hodges, Commanding Officer of the 76th Division.

That evening about 7 P.M., the regiment entrained for Toul and the front, picking up Company "E" at Châteauneuf.

CHAPTER V

RELINQUISHMENT OF COMMAND BY COLONEL POPE

With the transfer of Colonel Pope from the regiment in the latter part of August, it was deprived of the services of a commanding officer who took with him the respect and admiration of all those with whom he had become associated. He came to the regiment in its infancy, at the very beginning in fact, displaying a calm, dignified demeanor and exercising judgment upon all matters pertaining to officers and men with a deliberate ruling. It was the latter, coupled with his military bearing and exactness, that eventually won the hearts of all those who knew him. The officers who comprised the personnel of the regiment had come only recently from civil life, and still more recently from the military training camps, where discipline had been the main factor of their lives during the three months' course prescribed. Those men stepped into their commissions with a feeling of anticipation, and one might say a tinge of impatience, to enter upon their new duties and become a real factor in the organizing and moulding of the men who were to come into the unprecedented National Army.

This enthusiasm and impatience often assumed the form of suggestions and recommendations that were presented to Colonel Pope for consideration and disapproval or approval. With the tact and diplomacy of a man who understands the emotions and motives of his aides, he weighed all such matters carefully and rendered and presented decisions without giving offense. He exercised this quality of character throughout his entire association with the men and officers of his regiment. His patience at times, in affairs calling for the mustering of all his cool, deliberate faculties, was often his most admirable asset. He made us see the wisdom of his ways and set an example for military bearing and leadership; officers and men eventually followed of their own free will and accord. The wisdom of his decisions in all matters pertaining to his command can never be

questioned. The excellent discipline and morale and *esprit de corps* that existed at the hour of his departure from the regiment reflect the character of the man and speak far more for the position of respect he held in the hearts of his fellow officers than anything that can be said or written upon the subject.

On the day of Colonel Pope's departure the command of the regiment passed to Lieutenant-Colonel Whipple, who has been regimental commander to the present time. During the months which followed, months of intense activity, of trial and change and responsibility, the regiment ever maintained its standard, and under the direction of its new commander came to fittingly take its place beside the many splendid units of which the American Expeditionary Force was composed.

It is required that Corps Engineer regiments shall be commanded by either a Colonel or Lieutenant-Colonel, but not both, as the Corps Engineer indirectly commands the regiment. The administration and active command, however, rest entirely with the Lieutenant-Colonel. From this time on the officer personnel was composed of wholly National Army officers, most of whom had been commissioned and assigned to the regiment together.

CHAPTER VI

TO TOUL

The trip from Saint-Amand to Toul was made with mingled emotions. It marked the end of drills and of a long, laborious, at times monotonous, system of training. It was not so much the discipline and rigidity of military requirements that had kept alive the determination to see it through as it was the very fact that some day the results of the training would be subjected to the environment of battle conditions. Many obstacles and discouraging handicaps appeared to present themselves, making a realization of this latter dream seem a remote, far distant condition beyond actual materialization. And now, when men and officers actually found themselves riding out of the railway station at Saint-Amand toward the life that had seemed about to be denied them before, they could not refrain from settling back in their respective compartments with a feeling of satisfaction and anticipation. The eye carelessly roamed over the passing twilight landscape, and commonplace conversation gave way to silence and reverie, the quietude of which was broken only by the monotonous click of the coach trucks as they passed over the rail-joints and the fitful cheers of American troops who lined the banks and highways of country and village as the train sped on its way. There was ample time for meditation, and, inasmuch as darkness began to cloud out the new landscape, men gave free rein to their thoughts. One does not hesitate to classify them into those associated with home and its endearing environment, and those speculating upon the future and the man of the future. What sort of battle conditions were to play a part in our lives, and how was the individual going to act and conduct himself under the test that had proved to be a revelation of character to the spectator of this world conflict? Were the quiet, passive men of our regiment going to display the selfsame courage their British, French, and own brothers from America of the same general disposition had

THE CROSS-ROADS AT FLIREY

shown? What was the world like that was to be entered — the maker and destroyer of men? True enough, every one had read extensively upon the subject — novels, periodicals, and newspapers had filled the mind with the adventure of war and its surprises for four long years. Had the writers of these articles exaggerated some of their vivid, gruesome, and at the same time horrible, accounts of the war, or had they understated the actual conditions from lack of language to paint clearly in words the succession of scenes and events that unfolded before them? What was this big thing that was stirring humanity in all parts of the world like? What part were the 301st Engineers to play in it?

Thus did one meditate — first in the past, more often in the future; and, as the hours dragged on, drowsiness and finally sleep fell upon men and officers. The former had been crowded into the much-discussed railroad vehicles of France, the latter into second-class compartments. Each worked out his own salvation, made his own bed on floor, bench, or baggage, and went to sleep.

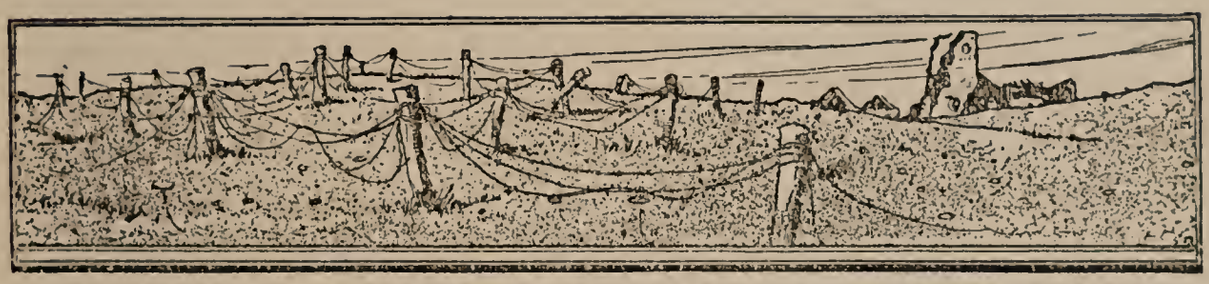
The morning of the 10th dawned to find the troops arousing from their cramped positions of the night before to look out upon a pleasant rolling country, well cultivated and well farmed, dotted here and there with the usual picturesque little red-roofed buildings of the French community farm. The train was somewhere in the vicinity of Auxerre and was speeding on its way toward Troyes. Reaching the latter place near noon, the course swung from north to east and saw the regiment on the main line passing through Bar-sur-Aube, Chaumont, and Neufchâteau. Bar-sur-Aube was reached after dark and was significant to our minds because it marked the first stopping-place of an advance detachment from the 76th Division, that had landed there in July, supposedly to choose a site and billet that Division. But for some reason, known only to those higher up, the Division was selected for a dépôt organization and billeted in Central France instead.

The train passed through Chaumont, the American Headquarters, during the night, and arrived in Neufchâteau in the early morning hours of the 11th. It had remained in the yards

for a very short period — about an hour — when it got under headway again, and brought the regiment to Toul. Approaching the latter place, one could begin to discern signs of front activities — forestry camps of engineers, dumps camouflaged against aerial observation, artillery pieces, and last, but not least of all, as the train drew into Toul, the long steel coaches bearing the Red Cross insignia and drawn up for the less fortunate of the impending offensive. Each was equipped with double-decked beds, operating-rooms, and laboratories, and for the first time perhaps gave us the feeling that at last here was something distinctly American. They were resplendent in their appearance, and so markedly superior in contrast to the French coaches that one could not help but feel a sense of pride in our country's workmanship and the efficiency of one of her war products.

As the men began to leave the train at Toul, the overhead clouds unloosened a downpour of rain. The companies were hastily formed, drawn up on the platform, and marched to the Bautzen Barracks at the outskirts of the city. These comprised a number of brick and stone buildings, two to three stories in height, and so arranged as to provide for a large court for drilling and transportation purposes. They were old French barracks and had been turned over to our troops during the occupancy of the Saint-Mihiel sector.

Field ranges were hastily erected, rations placed under shelter, and a hot meal prepared for the troops. The latter were made to take advantage of all available time to get equipment in shape and to snatch as much rest as possible. Ignoring the rush and bustle of the moment, the mud, and the new surroundings, the men followed orders, ate their food with relish, and lay down to await in sleep, or in subconscious slumber, the orders that were to carry them to their final goal.



In the Lines

PART III

PART III

CHAPTER I

SEPTEMBER 12, 1918

During the night and morning of September 11 and 12, the 301st Engineers was called upon to perform those duties for which it had been trained many months — it became an active element in a major operation; it had definite purposes to carry out for which it was directly responsible. In this, the first offensive of the First American Army, it had been chosen to keep open a part — a most important part — of several of the main lines of communication. The weather was partly cloudy and cold, at times made disagreeable by sudden outbursts of rain that beat into the faces of the men. Such weather as this was to be expected, however; it was a part of France and the men had long before learned to accept it as a natural attribute of the country. But there were few that night or morning who thought about the weather. Men were too absorbed with their thoughts and emotions and contemplation of the activities of the moment to give much thought to the elements or their own slight discomfort. There were things of greater import that demanded immediate attention.

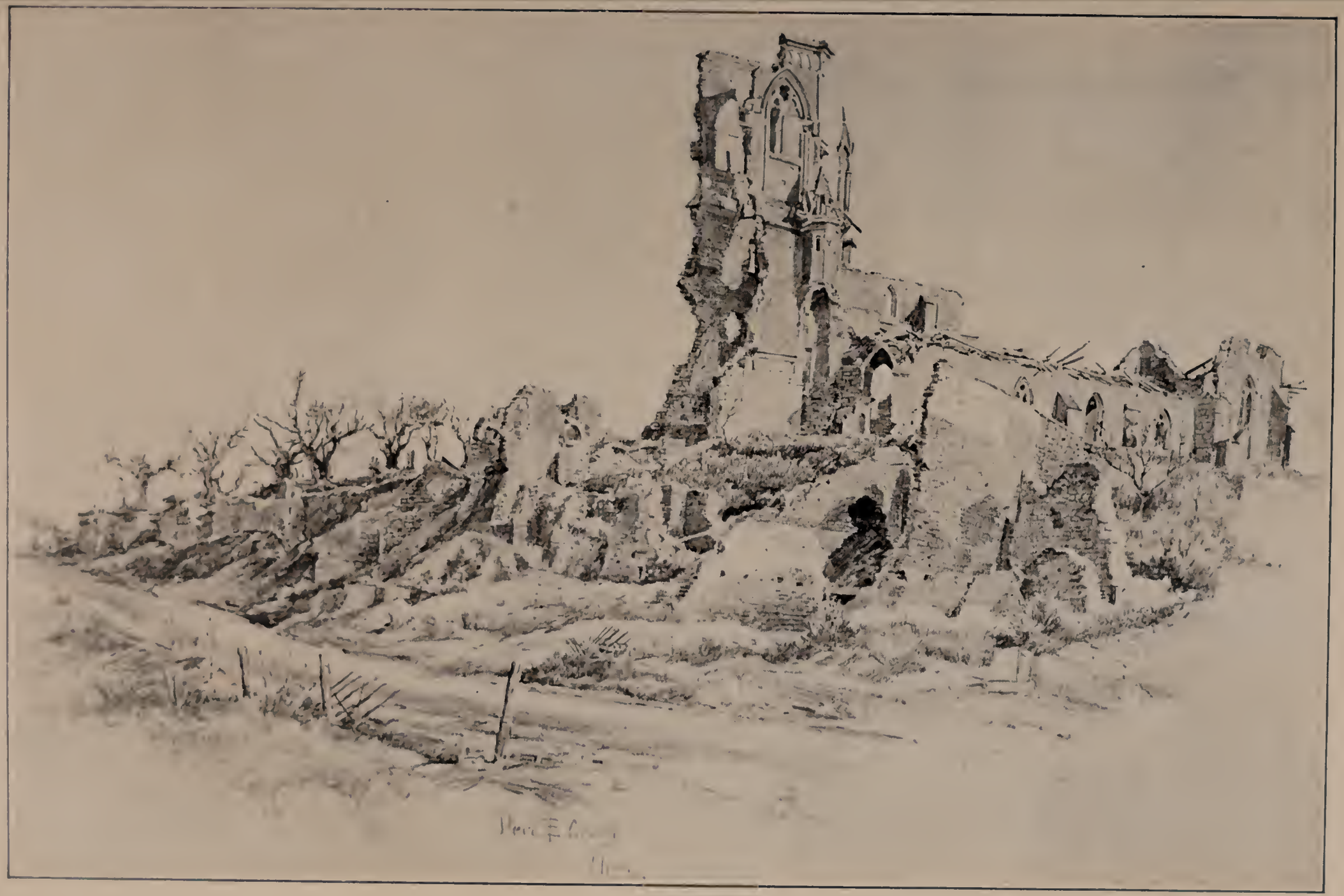
The movement to the front began when "F" Company was ordered to take over an engineer dump. This company left in two sections, the first in command of Captain Hussey, Major Porter accompanying the party. The detachment left at 8 o'clock on the night of the 11th for Ansauville, a small and unimportant village about two kilometers from Bernécourt and five from our own front lines. The second section did not leave until 3.30 on the morning of the 12th. This was in command of Lieutenant Kelly and was likewise ordered to Ansauville. There, "F" Company took over the engineer dump previously established and began to evolve order out of chaos. Engineer tools of all descriptions had been thrown into this dump with little or no thought exercised in their arrangement. To prevent loss of time to other organizations drawing tools for work to be carried

on at the front, "F" Company was assigned the task of putting it on an efficient basis. Tools were arranged so that they could be rapidly and easily issued upon a moment's notice. The company worked all that night and until noon of the 12th, when three platoons under Captain Hussey left for Flirey to work upon the lines of communication. For three days Lieutenant Kelly remained behind with one platoon to complete the work laid out for them and assist in the issuing of tools.

On the morning of September 12, the 1st Battalion, Major Dean, loaded in trucks, found its way through traffic and mud to Ansauville to perform such work on the main routes as was required. At Ansauville, however, Colonel McIndoe, then Corps Engineer, gave the Regimental Commander, who had proceeded with the battalion, instructions to continue at once to Flirey on the Metz highway. This had been the point of departure of our infantry at 5 A.M. Equipped with tools from the engineer dump at Ansauville, the battalion arrived at 11 A.M. at the cross-roads formed by the Metz highway and the Bernécourt–Flirey–Essey road. The arrival of the 1st Battalion on the edge of the four-year-old salient marked the entry of the first unit of the 76th Division, which, as a whole, had reached the battle lines of France.

From midnight of the 11th to 5.30 of the morning of the trip of "F" Company toward the front, the artillery had kept up a deafening bombardment. Men had started feverishly in their sleep and gazed dazedly toward the lines the trucks were now headed for; some had remained awake watching the fascinating spectacle as the flashes from the multitudinous guns lighted the whole sky and greeted the early morning hours with a sinister roar. The intensity of the bombardment seemed to increase as daylight drew nearer and then, working itself up to one supreme effort, finally abated to only occasional and indistinguishable reports. With them came the realization that orders to move to the front could not be very far distant, and when they finally did arrive, it was with no misgivings or apprehension that the men boarded the trucks and began the journey toward the lines.

Progress was somewhat slow and painstaking at first. This



From Sketch by Cowan

FLIREY CHURCH

was due to the fact that the train had left Toul and the barracks, *via* the Bruley–Lucy road. It was only a one-way road, an alley-way, as it were, in and out of Toul. The trucks left it, however, before reaching Lagney and turned off into the main highway between Toul and Menil-la-Tour. This was in excellent shape and accommodated vehicles in both directions with a great deal of freedom.

Traffic had not been encountered to any great extent until this road was reached. It was then that we had the first real conception of the enormous amount of transportation used in waging an offensive. The road bore a continual stream of traffic traveling in both directions. The train carrying the three companies of the 1st Battalion represented but an atom of that long procession of motor- and horse-drawn vehicles. There were truck trains similar to ours carrying troops to the forward areas. These were followed by ammunition, supply, and ration trains. Darting in and out between the distances separating them were the ever faithful ambulances going forward empty or traveling to the rear area, carrying their loads of mangled humanity to some field hospital. It was the latter that finally brought the realism of war to the senses for the first time. The men's curiosity, always getting the better of them, caused them to turn and gaze into those disappearing vehicles.

The sight of so many wounded and bandaged men caused a silence to settle upon our men for the time being and filled them with a determination to perform their duties as well as had they. Nor was this forgotten when they looked upon the first troop of German prisoners being ushered by the military police to the rear. They appeared to our men to be the responsible parties for the sufferings caused our own troops. They felt little compassion for them at that time. They were our enemies. As they filed past, one looked to see for himself if there was as great a difference in their ages as one had read in accounts.

For some time it had been heard that the man power of Germany was dwindling to such an extent that the Government had had to press youths of the land into service, not to mention the men from the later walks in life. And as these prisoners passed with their radiant, happy, and relieved faces, one per-

ceived that these statements were not untruths. Some of them were mere boys, while others looked to be men too old to bear the hardships of war. The majority of them looked well fed and well equipped. Only occasionally did one see a pinched and haggard face or a poorly outfitted man. They made no demonstration or attempt to cause their guard any trouble. They swung along at an easy pace, evidently glad that their fighting days were over.

A little farther on another group of prisoners was encountered herded together in a ravine by the roadside, and among them two or three German officers who stalked about with a demeanor so haughty in nature that they evoked laughter wherever they went. One in particular is remembered who wore nose-glasses and carried a little cane. He had on a long, heavy overcoat and the usual German officer's cap. One could not distinguish his rank from that distance, but from his manner some of the men judged he must be the Crown Prince himself. He reluctantly obeyed the order of his guard and strongly objected to being placed with the privates of his own army. His look of disgust and disdain was humorous to behold, as he tried to retain his dignity amid so much humiliation to his former rank and prestige. He finally passed from view with the rest of his comrades as the battalion continued on its way to the front. Numerous little incidents of this nature relieved the tension in the atmosphere and caused the men to enter into the spirit of the moment.

The trucks passed through Menil-la-Tour and out upon the camouflaged road, headed toward Bernécourt. This, too, was the first encounter with road camouflage as practiced at the front. Those parts of the road which fell under direct observation of the enemy had been concealed by branches, from twelve to fifteen feet long, cut and set in a vertical position about eight feet from the side of the road. The branches and saplings were wired or lashed to horizontal strips, holding them together and keeping them in place. In some places wire meshing had been used and burlap strips woven in and out of the meshing so as to break up the outline of any objects moving on the road. From a hasty point of view the camouflage appeared to be very crude, but it served its purpose, which after all was what was required of it.

In due time the battalion arrived at Ansauville, now the Corps Dump. The trucks had to swing off the road about two hundred yards to the west to come around into line and load the tools. Each man carried with him either a pick or a shovel, and in addition a few axes were assigned to each company to meet any emergency that might demand their use. "F" Company issued the tools to the battalion in less than thirty minutes, and once more it found itself on the main highway going in the direction of the front.

The roar of the artillery now became more distinct and the aerial activity more intense, as scout, bombing, and battle planes maneuvered overhead; one began to feel that he must be approaching the immediate vicinity of our battery positions. The men were on the constant lookout for them, but it was not until they had passed through Bernécourt that they got their first real glimpse of our batteries in action. They lay very close to the road and to the edge of the woods on either side. Wire entanglements and a wrecked bridge on the left lent color to the scene. And beside the battery, on the reverse side of ravine and valley, were the dugouts which all had hoped to see. They were not the huge, complicated affairs studied in the Field Manual, but, at least, they bore resemblance to dugouts even though constructed from sheets of corrugated iron and stone.

It was later learned that the term "shelter" was a more appropriate one for this type of dugout and that they afforded very little protection from high-explosive shells. But any speculation as to their efficiency was waived for the moment in observing the guns as they hurled their missiles forward into enemy territory. They were heavy caliber guns, about six-inch, the long naval type, and each burst of flame was followed by a report that caused a ringing sensation in the ear-drum for many minutes afterward. They were not firing rapidly, but more in accordance with a prearranged schedule. Soon these, too, passed from view, as had everything else that morning. Round a bend in the road the trucks began to descend a small hill covered with second-growth timber, finally straightening out their course again, passing through a valley the reverse slope of which was covered with shelters and dugouts of all descriptions. It looked

as though there were enough shelter present in that hillside to accommodate a small-sized city.

A narrow-gauge railway found its way down through the valley and across the road; and, as one glanced back down the tracks on the left, one saw evidences of a cemetery — a small city of the dead — protecting the bodies of many of the French who had given their lives in the earlier days of the war. Little wooden crosses indicated the graves, and on them were the red, white, and blue disks of France. Some of them bore the artificial floral wreaths so commonly found in these places at the front. Each marked the final resting-place of one from that land that has suffered and endured so much from the enemy our own troops were now driving backward. Could they but have been spectators of the battle that was waging that morning, they would have understood how their sacrifice had not been in vain.

The battalion began to ascend the hill, only a slight incline marking the approach to Flirey, and as the track was crossed and the dugouts reached, there were beheld on the left the ruins of one of the many artistic steel bridges of France. The accompanying photograph, taken some time later by the Topographical Department, illustrates very well the extent of damage done. The bridge is on the western outskirts of the town and had been destroyed by blowing the upper and lower chords of the girder and the truss, the charges having been placed between six and eight feet from the abutment. When exploded these members were ruptured and that end of the framework let down to the ground with very little injury to any other part.

It is believed that the French themselves destroyed it some time previous to prevent a further advance of the Germans. Certainly it had not been done in recent operations. The breaks were old and there were other evidences that the destruction had been planned and executed long before.

BRIDGE AND TELEPHONE CENTRAL, FLIREY, SEPTEMBER 12TH

CHAPTER II

FLIREY

The 1st Battalion finally drew into the shelled and battered little village of Flirey, the last town before the "jumping off" trenches of the morning's attack. Little did any one realize, at the time, the importance of the part this town was to play in the regiment's operations. A casual survey of Flirey caused wonder as to how such heaps of ruins could be of value or service. There were no buildings that could be said to be intact. They had all suffered to some extent from the marksmanship of the enemy artillery. At the cross-roads where the companies had alighted and changed pack and rifles for picks and shovels, one building alone remained standing. This was the ruin that later served the Red Cross as a canteen and shelter — where many a cold and exhausted "doughboy" sought rest and comfort and was sent on his way with the well-wishes of a woman's voice ringing in his ears and a cup of hot cocoa in his stomach. The Red Cross Canteen at Flirey later became a warm favorite with the troops in that sector.

The concentration caused by our soldiers and the slowly moving traffic made it immediately necessary to dispatch the companies to various points. Being a very important road intersection, it would have proven an attractive target had it been possible for the enemy to have directed fire upon it.

"A" Company followed the road toward Essey, making a hasty reconnaissance and filling some of the worst holes. In a short time it was brought back to the Flirey Hill, which presented the greatest obstacle to traffic.

"C" Company, going east toward Limey, encountered little need for work till it reached a place where the Germans had built heavy walls of rubble set in concrete across the road. Small gaps had been broken through, but the body of the walls had still to be removed. This was rapidly cleared by Captain Betterley, after which he continued to the Remanauville road over

which artillery was then moving with difficulty. On this stretch he made efficient use of ninety or more prisoners, and by evening the road was passable. The company, with the exception of a detail left to finish, then returned to the Flirey Hill where they immediately began work.

"B" Company had, without delay, directed its efforts on the road from Flirey over the hill, where it remained for some days. As the companies marched out to their respective tasks, one found time to observe the work of the enemy. Heaps of stone had replaced the former buildings of the town, or only battered walls remained to point out to the men the home or house of some law-abiding citizen before the war. But the greatest damage of all was the destruction of the church. It was not understood then, perhaps, as well as now, that the church is always an artillery point of registration, and that it invariably suffers destruction foremost of all the buildings. The church of Flirey was no exception to this rule. The front wall of the tower had been completely blown away so as to present the appearance of a structure that had been gnawed upon by some huge prehistoric animal. The roof shared a similar fate — hammered for four years by the enemy's guns, it had finally collapsed, leaving only the walls to continue the struggle for existence, and in the end, they had won, leaving one more monument to mark the savagery of modern warfare.

The companies continued their labors of widening the roads, filling in the shell-holes and making them passable for the artillery. "C" Company later joined "A" and "B" Companies, and, not long after, that same night of September 12 and 13, found Companies "D," "E," and "F" working beside the 1st Battalion on the Flirey–Essey Hill. It is one night in the lives of all never to be forgotten. Men and officers worked as they had never worked before. They were confronted with the task of building a new road over ground which had been completely shell-swept. It was fortunate, in a way, that they were able to find the old road foundation and expose it by removing a foot of red clay that covered it from view. It was unfortunate, in another way, that this foundation, under the most important section of the road from the beginning of the ascent to the crest

of the hill, had been so badly shelled that it was necessary to make a détour to the left and build a new section of road. In all, this could not have been more than 250 meters in length, but because of its position it presented the hardest kind of a road problem. It crossed the enemy's outpost system filled with maze upon maze of barbed-wire entanglements and shell-holes, the latter being the work of our own artillery in the preparation of the attack.

The men had to build a road with no prepared foundation and at the same time keep the traffic moving to the front and to the rear. The material had to be found on the ground. The French carts brought from Toul had not begun to function as yet. The men combed the surface soil for rocks and gravel and, carrying it in shovels and bags, deposited it upon the proposed road. It became slow, painstaking work, handicapped further by the assistance they had to render drivers whose vehicles could not make the hill. The men labored under these conditions until darkness shut out all possibility of finding more road material. After that, it simply became a question of applying man power to the wheels of those horse-drawn and motor vehicles and boosting them over the hill. The men became so tired and exhausted, from the lack of food and sleep, that the continual whine of enemy shells and the crack of our own, offered but little to divert their minds. They had become machines of the offensive which mechanically obeyed and carried out the orders from higher authorities. The one great thing that kept them alive to the situation was the sight of our own wounded troops continually passing to the rear, in ambulances and on foot. They made sense of duty only too evident. The order finally came to descend to the field ranges that had been set up in Flirey and fall in for mess. It was an order that the men did not find difficult to obey. About 10 o'clock that night they had their first meal since early morning, pitched their tents, and turned in for a few hours' rest. At 3 o'clock the next morning all were aroused from deep slumbers to resume work immediately on the hill.

The companies finally picked their way in and out among the stalled vehicles to their respective positions and repeated the operations of the night before. Within two hours traffic was

proceeding in good order and the men building up a road that vehicles could pass over. Fortunately they were aided by the French carts and a few escort wagons which hauled material from Flirey. In addition to our own troops, eighty German prisoners were pressed into service, who were made to carry rock from the adjoining fields, and break it up into small sizes with sledges. It was pointed out by a staff officer riding by that a breach of international faith had been committed and one of the laws of The Hague had been tread upon, but as one was liable to criticism for not having the road in condition just as much as for working prisoners in the zone of fire, the scales seemed to balance.

One of the first uses to which the road was put, was the getting over it, of the artillery, which had to reach, without delay, new forward positions, in support of the advancing infantry. In the case of the 75's, being horse-drawn, there was not much difficulty; when the animals became tired a dozen or so men would take hold and push the piece across. With the heavier guns, howitzers, and rifles, tractor-drawn, the grade and mud were an obstacle which was overcome by the use of the cable; the tractor going to the top of the hill and drawing up the piece on the drum. For hours at a time these guns would fill the road. Some of the 155's had names painted on their camouflaged or olive-drab sides, by which they were fondly known by the artillerymen. At the cross-roads, during a halt on one occasion, could be seen such names as "Sunshine Jane," "Dutch Cleanser," "Cure for Kultur," and "The Haymaker."

As a result of the labor of the men, two wide ruts filled with stone had been built across the hill. This runway served well, except at night, when the traffic slipped off and stalled. At the end of fourteen hours, broken trucks, automobiles, material of many kinds which had to be unloaded, and wagons too heavily laden, were piled on both sides of the road; later, when there was time, repairs were made and the journey continued. Soon enough stone had been brought up to cover the space between the ruts and extend the sides somewhat, after which the road steadily improved until traffic of all kinds used it with no trouble.

Standing on the hill at Flirey on this night and looking across the arc between northwest and northeast were seen the results of an army in retreat. Beginning at Heudicourt the great dumps had been fired by the enemy and were blazing furnaces; just before reaching Vigneulles, where the standard-gauge railroad crossed, a large dump had also been lighted, and from there on to Hattonville, Billy-sous-les-Côtes, and Saint-Maurice, all the stores which the Germans had left behind were ablaze, lighting the sky for miles.

For work in connection with roads, a number of French two-mule carts had been attached to the regiment. Though their French drivers, despite all efforts to make them, would not load more than a bushel of stone at a time, their services were welcome, for they would weave in and out of the congested traffic, and often when stone was needed badly and available from no other source, a cart would suddenly appear with just enough stone to fill a hole or widen a piece of rut. All during the night and in the day the drivers' familiar "Allez! Allez!" mingled with the myriad other sounds as cart and driver came and went, unconcerned, placid, heeding neither praise nor censure. When the Mack trucks could be used, the use of the carts was unnecessary.

By the night of the 13th, a system of reliefs had been worked out so that some troops were constantly on duty; from that time on the problem largely became a matter of road maintenance; of widening the one-way sections to accommodate two-way traffic, of building berms and digging drainage ditches. This work later was expedited by truck transportation and the use of a stone crusher. The latter was set up in Flirey and slowly and grudgingly turned out stone for the finishing layer, while the big trucks hauled the material to the desired points on the road. Thus it was that the companies of the regiment created something out of very little and completed a road that served to keep open the important line of communication between Toul and Beney.

CHAPTER III

THE FIRST CASUALTIES

THROUGHOUT the days of September 12, 13, and 14, the ambulances came steadily southward with their usual loads of human freight. Upon reaching the north side of Flirey Hill, they were forced to wait until the traffic northward could be stopped so that they could pick their way over the road, which as yet could only accommodate one-way traffic.

Toward evening of the 12th, congestion of traffic occurred, due to a number of overloaded French trucks which were unable to proceed. These were unloaded and several were run off the road into a ditch, it being better to sacrifice their loads than to hold up miles of traffic. During these pauses the ambulances pulled to one side and the suffering occupants bore their pain in silence or relapsed into unconsciousness. For these men each minute's delay had a tremendous significance as their chances of reaching medical aid lessened. All were stretcher cases and in a most pitiful condition. Our regimental surgeons were able in a small way to administer to some of them, but the efforts of the regiment were bent on securing uninterrupted traffic. By 9.30 P.M., traffic was again normal and the companies, except for some details, assembled at the cross-roads to eat their first meal that day.

On the afternoon of September 14, Lieutenant A. E. McDonald, Master Engineer Bennett, and twelve men of "E" Company (Sergeant Donahue, Corporal Le Plant, Privates Nolan, Brown, Fowler, Meltzer, Arbio, Fredericks, Grogan, McDonough, Bazin, and Plant) became the first casualties of the regiment. It is not clear just what occurred; there was an explosion, and though the air was filled with vibration, which, with the noise of the trucks and the shouts and orders, tended to deaden all other sound, there was no mistaking the cries of men in pain, and when their comrades approached, the wounded were lying or sitting on the side of the road.

ANOTHER VIEW OF FLIREY CHURCH

noon was viewed. These were men of our regiment who had been made to suffer. The cries of pain came from lips that had been known only to joke and laugh before. They had not even been given a chance to prove that they were worthy of all confidence; they had been stricken down while on their work.

Unlike the foregoing, and dealing with a different phase of war, is the tragedy of the inhabitants. Whenever territory of any depth is wrested from the enemy, invariably French inhabitants are released from German rule. Subjected as they were to four years of German autocracy in the Saint-Mihiel Salient, their joy at being released was unbounded. In some way known only to themselves they had managed to withstand artillery fire of their own troops, hiding in cellars or dugouts until friendly troops had begun their attacks and finally taken the town. Then they came forth from their places of concealment and literally "fell upon the necks" of their rescuers. It was while the men were still working upon the road between Flirey and Essey that they got their first glimpse of the French peasant and realized some of the privations the war had forced him to undergo.

For days after the offensive the people of France found their way back to a zone of safety. Men, women, and children pushed and hauled along the road a small cart bearing all the property they had in the world. One might expect them to be in a mental state of depression, in the midst of such ruin and desolation. But we, who would think such to be the case, do not understand the heart of the people of France. It was a common sight to see a mother leave the road to throw her arms about one of the men and kiss him out of sheer joy and gratitude for being free once more. That was the sort of spirit in evidence everywhere. They were glad to be alive, to enjoy the freedom of a French citizen. The road was never rough nor the journey too long when their goal lay so close at hand. Though they had lost home, friends, and all their worldly wealth, they chose these conditions in preference to German domination.

A well-known correspondent, who had been in this vicinity during the attack, graphically describes some of his talks with the refugees:

THE ROAD ACROSS NO MAN'S LAND

"We came from the villages of Bouillonville, Lamarche, and Nonsard," said a venerable priest who headed the column. "These poor people have been prisoners almost since the war began. They were hungry for a sight of the relatives from whom they had been cut off."

His black clerical coat was worn shiny and his wide-brimmed hat was battered, yet he carried himself with dignity. He was wearing a pair of German boots that he had picked from a pile of refuse behind the enemy barracks. An aged woman was driving a tiny donkey hauling a cart containing bedclothes, alongside of which trotted a cute donkey colt, so small that the American soldiers crowded around to look at it.

"Can I get to Paris?" asked the old woman. "The Germans told me that the city had been destroyed. I have been living in a cave with this animal and my sixteen-year-old grandson, whom the beast oppressors have sent to Germany."

A French soldier was pushing a wheelbarrow in which were a large ormolu clock, two mirrors, and a bundle of clothing. An elderly woman followed leading his horse, for the soldier was a cavalryman. He had come upon the woman near Headquarters where as orderly he was attached to the French Liaison Officer. She was his aunt, whom he had not seen for six years. An American general had witnessed the reunion, and gave the soldier ten days' leave to enable him to take his relative to her sister.

A little boy was carrying a box containing two rabbits. He told us he had walked sixteen miles without breakfast, whereupon an American soldier near by produced a large cake of chocolate from his pocket.

I noticed but one baby in the entire line. All the children were four years old or more. One farmer said the Germans had told him the submarines had sunk all the ships which started with American troops. A woman with tear-paths worn under her watery eyes said that the Germans had said the French were doomed; the people were starved and diseased. It is difficult to appreciate the happiness of these people when they met our troops upon the roadsides. One actually wearied of saying so many times "Bonjour." Their actions made it felt what in a personal sense our entry into the war meant.

(b) Zone of action:

Eastern limits: Bouvron (incl.) — Minorville (incl.) — Noviant (incl.) — Limey (excl.) — unimproved road extending north from Limey to center of Bois d'Euvézin — Hill 261 (Point 2788) (excl.) — Thiaucourt (excl.) — Xammes (incl.) — Charey (excl.)

Western limits: Sorey-sur-Meuse (incl.) — Vertuzey (incl.) — Jouy (excl.) — Étang Blonneau (excl.) — Rambucourt (incl.) — Hill 241 (1300 m. N.E. of Rambucourt) (excl.) — Hill 239 (1 km. east of Marvoisin) (incl.) — Richecourt (incl.) — eastern edge of Bois de Gargantua — Étang de Champres — western edge of Bois de la Belle Ozière — western edge of Bois de Nonsard and Bois de Vigneulles to northern tip of le Chaufour B. — western edge of Bois des Haudronville S-Bas.

(c) The first day's attack is divided into two phases.

(1) First phase (by divisions):

The piercing of the enemy's outpost position breaking through his position of resistance and the seizing of the heights south of the Madine River and southeast of Bouillonville.

(2) Second phase (by the Corps as a whole):

The general advance to the position Nonsard–Thiaucourt (heights North of the Madine River and Rupt de Mad).

(d) Second day:

(1) On the second day it is expected that the Corps axis of effort will be toward Saint-Benoit and Vigneulles, the right division extending the front through Bois de Dampvitoux–Xammes to the 1st Corps, and the left division extending the front along the western edge of the Bois de Vigneulles, Bois de la Belle Ozière to the 2d C.A.A. (French), reconnoitering to the west of the Vigneulles–Buxière railroad.

(2) The Corps Commander may order this advance on the first day.

(3) Thereafter the Army may direct an advance to the general line Viéville (incl.) — Hattonville (incl.) northern slope of Chaufour B. — Château Saint-Benoit — center of Bois de Dampvitoux–Xammes (incl.). This line is know as the Army Objective.

(e) Strong reconnaissance will be pushed out by front-line divisions from the objective of the second phase, first day, and from the second day's objective. Upon reaching the Army Objective strong detachments will be sent out toward the line Dommartin, Lachaussee, northern edge of Bois des Haudronvilles Bas.

(f) Objectives.

(1) First phase, first day:

The capture of the line southern point Étang le Lambepinot — north edge Bois Rate — 1/2 km. north of Essey (Point 88.78) — road and railroad crossing 1 1/2 km. N.E. of Essey (Point 99.835) — bend of river 1 1/2 km. N.E. of Euvézin (Point 17.895) — Point 2893 (point of junction with 1st Corps).

This attack will start on D day at H hour.

(2) Second phase, first day:

Capture of the general line eastern edge of Étang de Lambepinot — northern tip of woods north of Étang de Lambepinot (Point 49.73) — Nonsard (incl.) — La Marche (excl.) — southern tip of Bois de Thiaucourt — cross-roads 700 m. S.E. of Beney (Point 08.155) — cross-roads 700 m. south of Xammes (Point 255.265; point of junction, 1st Corps).

This attack will start from the objective of the first phase at H plus six (6) hours.

A delay of one hour may be ordered by the corps, in which event this attack will start at H plus seven (7) hours.

(3) (a) 1. The 42d Division will attack in the center, and will deliver the main blow in the direction of the heights overlooking the Madine River within the sector, starting its main effort east of Maizerais and Essey.

2. General point of direction: Saint-Benoit.

3. Boundaries of its zone of action:

Eastern: Same as western boundary of 89th Division.

Western: Boucq (incl.) — le Neuf Étang (excl.) — Mandres (incl.) — Beaumont (excl.) — Seicheprey (incl.) — Saint-Baussant (incl.) — Height 215 (incl.) — 1700 m. east of Étang de Pannes (Point road fork 745.730) — La Marche (incl.) — western tip Étang de Vigneulles — eastern edge of Le Répiquage clearing.

(b) 1. The 89th Division will attack on the right, and will assist the 42d Division by exerting its main effort on its left to include the Rupt de Mad, whence it will assist the advance of the 2d Division, 1st Corps, by turning the Bois d'Euvézin, Bois du Beau Vallon, and Thiaucourt from the west. Should circumstances delay the division on its right, the 89th Division will capture, hold, and turn over Thiaucourt to it on its arrival; by the capture of the east edges of the Bois de Mort Mare it will assist the initial advance of the 2d Division, 1st Corps.

2. General point of direction: Dampvitoux.

3. Boundaries of its zone of action:

Eastern: Eastern limit of the Corps.

Western: Lagney (incl.) — Sanzey (incl.) — Ansauville (excl.) — 400 m. northeast of Bois du Juoy (Point 045.30) — Point 045.685 (about 1 km. S.W. of Euvézin) — An. Min. de la Haie (saw-mill 400 m. west of Euvézin, incl.) — Beney (incl.) — Point 95.57 (N.W. tip of Bois de Dampvitoux).

(c) 1. The 1st Division will attack on the left, and will assist the 42d Division by the prompt capture of Richecourt and La Hayville, the turning of the Quart de Reserve and the Bois Rate, and the capture of the heights south of the Madine River. During its advance it will guard the gap between Richecourt and Étang de Lambepinot. It will send strong reconnaissances into the Bois de Gargantua, and maintain

AMERICAN TRAINING TRENCH

liaison with the 2d C.A.C. (French). It will also reconnoiter through Bois de la Belle Ozière and Bois de Vigneulles to the west of the Vigneulles–Buxière railroad.

2. General point of direction: Vigneulles.

3. Boundaries of its zone of action:

Eastern: Same as western boundary of the 42d Division, to Étang de Vigneulles.

Western: Western limit of the Corps, to Étang de Vigneulles.

Thus it will be noted that the limits of the 4th Corps were between the Limey–Thiaucourt–Xammes line on the east and the Rambucourt–Richecourt — western edge of Bois de Nonsard — western edge of Bois des Haudronville S-Bas line on the west. The first phase of the first day's attack found our troops in possession of the heights southeast of Bouillonville and south of the Madine River. The second phase brought them to the general position of Nonsard–Thiaucourt. The completion of the movement took place on the second day and brought our advance to the Viéville–Hattonville line. The attack of the 4th Corps in conjunction with the pincer-like movements of the lst Corps on the extreme right and the 5th on the extreme left reduced the Saint-Mihiel Salient within twenty-seven hours. The advance of the troops moved with clocklike precision. Quoting the comment of military critics and observers:

> The American assault from the south moved with uniform precision. There was nothing of the awkward delays of isolated points which have so often added to the costliness of an offensive. Along every road from the lines of departure toward the heart of the German positions the schedule held. One hundred and fifty square miles of enemy territory were snipped off at a clip. In other words, the leadership was perfect; the one factor upon which apprehension was legitimate has been eliminated.

The battle for the Saint-Mihiel Salient was opened at five o'clock on the morning of September 12, on a thirty-five mile front after a four hours' bombardment. The main American force struck from the south. French and Americans advanced simultaneously from the west, north of Saint-Mihiel, while French troops took the city of Saint-Mihiel at the apex of the salient. All these forces were under the direct personal command of General Pershing. The salient was practically wiped out on the first day.

Nightfall of the second day saw the armies facing each other approximately on the new line marked by the arrows on the map. During the succeeding days short advances were made west of the Moselle River, the infantry fighting soon gave way to artillery duels in which the guns from the Metz forts took part. Secretary Baker visited Saint-Mihiel and issued a statement in which he said: "The action and all the circumstances are brilliant and justify the hope of a great nation whose armies are engaged." On the 14th General Pershing gave out an official statement of the results of the fighting, in which he said:

> The dash and vigor of our troops, and of the valiant French divisions which fought shoulder to shoulder with them, are shown by the fact that the forces attacking on both faces of the salient effected a junction and secured the result desired within twenty-seven hours.
>
> Besides liberating more than 150 square miles of territory and taking 15,000 prisoners, we have captured a mass of material. Over 100 guns of all calibers and hundreds of machine guns and trench-mortars have been taken.
>
> In spite of the fact that the enemy during his retreat burned large stores, a partial examination of the battle-field shows that great quantities of ammunition, telegraph material, railroad material, rolling stock, clothing and equipment, have been abandoned. Further evidence of the haste with which the enemy retreated is found in the uninjured bridges which he left behind.
>
> French pursuit, bombing, and reconnaissance units, and British and Italian bombing units divided with our own air service the control of the air, and contributed materially to the success of the operation.

German press references to the battle declare that the withdrawal was voluntary, but Allied writers point out that the loss of prisoners and material was certainly not desired by the Germans, though the abandonment of the salient may have been welcomed as a needed shortening of their lines. Some authorities are inclined to think that the German High Command expected the attack, but had counted on a little more time, and, though able to withdraw most of their artillery, they were unable to extricate considerable bodies of infantry from between the two rapidly closing jaws of the trap. German accounts lay great stress on the numbers of tanks used. They, indeed, did perform splendid work. At many places the great open gaps in the wire with wood and iron stakes uprooted bore evidence of their value.

In our exultation over the American success in Saint-Mihiel, we are cautioned by the military experts to remember the limitations of the offensive. It is, they say, "a maneuver intended to compel the German to weaken his front in Artois and Flanders, to confuse and further disorganize his plans, and consume his reserves, to keep him busy and prevent any effort on his part to regain the offensive." But it is not, it is added, an operation aimed at Metz or at the Rhine, but simply "one more of Foch's many blows." Another says: "Its first importance, in my opinion, is in removing altogether the troublesome German salient at Saint-Mihiel; but besides nullifying the German spear-thrust toward Paris, which had resisted all attack for four years, the American victory of Saint-Mihiel released the vitally important Verdun–Commercy–Toul–Nancy railroad, the Hun possession of which had divided the Allied front from Verdun to the Swiss border into two sections." General Maurice agrees that next to the destruction of German man power, this is the most important result of the victory. Another British critic says: "Verdun, hitherto a blank wall against which the Germans have beat in vain, now that the railway line to Commercy is working, as it will be presently, is capable of becoming the horn of the offense to the Germans." "Between the Meuse and the Moselle, General Pershing is breaking into a perfect web of railways, which has been of priceless importance to General Ludendorff for maneuvering. Here, if anywhere, is the enemy's Achilles heel." If the "Americans have not yet reached this heel," he continues, "they have, by threatening it, forced the Germans to concentrate for its defense."

Similarly another critic who doubts our ability to break into the Rhine Valley, says:

> We may, however, be able to force a new concentration of reserves against us, and enable Foch to deliver another blow in the Champagne, or in Flanders, or against the Hindenburg line, which, in turn, would require another readjustment of enemy reserves. In the end, this process may be expected to develop a weak place in the line through which we can go, and begin the process of dividing and curling up the enemy defense, just as he tried to do in March when he struck at the point of contact between the British and French armies.
>
> The reduction of the salient brought our forces to within fifteen miles of the great Briey iron basin; if this were lost, it would greatly

cripple Germany's efforts. The iron and coal from this rich district has done much to enable the enemy to promptly deliver his war material at the front.

Another writer says:.

By the Treaty of Frankfort, in 1871, Germany ran the frontier line so as to divide the iron area into two parts. Up to the time when Germany occupied it all, it gave her annually 21,000,000 tons out of her total production of 28,000,000. It gave France 15,000,000 tons out of a total production of 22,000,000. Since the autumn of 1915, Germany had been adding this 15,000,000 tons of ore to her 28,000,000 and thus obtains 43,000,000 tons, to which are added 6,000,000 tons extracted from the Luxembourg mines, making an annual total of 49,000,000 tons, of which all but 7,000,000 come from the Bassin de Briey.

Speaking of the conquest of the salient a writer says:

A few days ago it was a German stronghold; now it is an old curiosity shop; and many and strange things are discoverable in the old curiosity shop of the Saint-Mihiel Salient. Odd human material, no less than peculiar mechanical devices, fell into the hands of the American troops who pinched that salient out of the old entrenchments. Among the mechanical curiosities are mentioned whole batteries of make-believe artillery, stovepipes and legs painted in camouflage designs, mounted in former German positions, threatening the former American lines. Papier-maché mortars have been hauled out of the old entrenchments.

Another and more remarkable evidence of the enemy's ingenuity — and possible impoverishment of materials — is an imitation tank; a bizarre construction which the "Times" correspondent dubs a "Trojan horse of the Western Front." It is a wooden tank equipped inside with nothing save eight handle-bars by which it could be propelled. It was found abandoned at no greater distance than Thiaucourt. American shell-fire had sadly ruined it, but nevertheless it was still an eloquent witness to what it must have meant to the Germans to give up the vast supplies of every kind that they were compelled by the Americans in the course of recent operations to surrender.

While these comments have hinted at the topographical features of the salient, greater stress has been laid upon the military situation. It is true that it is spoken of as a basin and rightfully so. Turning to the Commercy map it will be observed how this great basin lies between the ranges of the Moselle on the east and of the Meuse on the west. These two rivers cross through valleys flanked on either side by a range of very high hills. The western

MAP SHOWING MOVEMENT OF AMERICAN TROOPS AT SAINT-MIHIEL

Arrows indicate ultimate objective

range of the Moselle, from Pont-à-Mousson north, roughly forms the eastern boundary of the basin. The eastern range of the Meuse forms the western boundary. But the hills of the latter, unlike those of the former, do not fall away so rapidly. Consequently we find a very high hilly section between the western line of the salient and the Apremont–Buxerulles–Heudicourt–Vigneulles–Hattonville road. From this line eastward and to the north the basin proper begins and unfolds before the eye as far as the Moselle ranges. Here and there hills project skyward and form short ranges or isolated elevations on the horizon of that rolling basin. Notable among these are the heights at Bouillonville and Thiaucourt and the range between Loupmont and Woinville. To the latter range belongs the famous Mont Sec, the stronghold of the Germans that figured so conspicuously in the offensive. The interior of this mountain was so wonderfully developed by the Germans that the following article is quoted as a fitting climax, which capably describes the work done by them to the preparations they had made to hold this salient at all costs.

An American correspondent says:

Mont Sec dominates the lower part of the Saint-Mihiel Salient as the Woolworth Tower dominates the lower part of Manhattan. A description of the dugouts in this vicinity furnishes a commentary on the domestic habits of the modern Teuton warriors and on the fighting ability of the Yanks who captured them.

The shelters were made of steel, concrete, stone, mortar, brick, forty or fifty within the mountain-side. Some built in 1915 are ornamented with the German coat of arms. They are littered with maps, papers, clothing, knick-knacks, showing they were furnished in great comfort with beds, chairs, and pictures.

The Germans had four years to do it in. These dugouts, facing north and so difficult of observation by the Allies, had fine porches, pretty tables, with a splendid view across to the Meuse heights, and it was there the German officers used to drink their beer.

One of them had a hammock slung under the trees and another had an open air bathtub, but great gaps showed where our shells had crashed in upon them, and one big dugout, by name "Villa Minna," had completely caved in. The occupants lay on their faces on the floor. In another dugout lay a dead German officer, while beside him lay a dog silently watching his dead master. He would not make a responsive sign to coaxing or whistling.

The whole top of the mountain is elaborately interlaced with paved

paths railed with rustic woodwork, leading to all manner of observation posts with look-outs at every possible angle. One big, pretentious villa had been occupied by a German brigadier.

The strange coincidence is that the Americans got at Château-Thierry complete information as to the exact whereabouts of everything atop of Mont Sec; the captured maps showing complete details.

From Mrs. Lily Crane

MONT SEC

CHAPTER V

THE LINES OF COMMUNICATION

As Corps Engineers and subject to orders from the Corps Engineer, it is interesting to refer again to Field Order No. 14 and note the duties of each and the relationship between our assignments and those of the Division Engineers:

. . . . . .

Division Engineers.

1. Suitable detachments of engineers will be detailed to accompany first-line battalions for use as follows:

(a) Making breaches in the hostile wire with torpedoes.

(b) Assisting the crossing of the Rupt de Mad.

(c) Facilitating the crossing of trenches by the light tanks.

. . . . . .

Plan for using the Engineers, 4th Army Corps

1. Preparatory Engineer Work.

(a) Establishment of advance Divisional and Corps dumps and distributing therein a selected supply of materials and tools.

(b) Training of Engineer troops in loading and using Bengalore torpedoes for destroying wire entanglements.

(c) Adoption of plans and assembly of materials for crossing trenches by use of portable bridges and planks.

(d) Securing and distributing extra wire cutters for use by the infantry in clearing away entanglements.

(e) Improvements of roads in the Corps sector and adoption of traffic managements and routes.

(f) Continuing the work of construction dugouts for P.C.'s and for troops.

(g) Keeping in touch with the C.E. 1st Army on above points and on questions relating to 60 cm. railway work, water supply, etc.

(h) Securing and issuing special supplies needed by Corps and Divisional troops.

2. Engineer troops.

The 6th Engineers of the 3d Division (Corps Reserve) will be used in the organization of the ground and on road and other work. The 51st Pioneer Infantry less two companies, will be available for furnishing labor on engineering work. Two companies of this regiment will be assigned to each of the three divisions in the line and four companies to the corps.

3. Use of Corps Engineers during attack.

The most important work to be done is that on roads and bridges. On this work the Divisional Engineer Regiments will have made sufficient progress to provide for wagon transport. There will remain the improvements needed for truck transportation such as filling shell-holes and widening the road for two-way traffic wherever possible.

One company of Engineers, assisted by a company of Pioneer Infantry will be assigned to each of the three axial division roads.

The three remaining companies of Engineers, and one company of Pioneer Infantry will be assigned to work in rear of the advancing Divisions, following up the work of improving communications, cutting stakes, placing materials where needed, filling old trenches or road crossings, providing road material from quarries, ruined villages and walls, and bringing up road planks from the dumps. Some corduroying of roads may be necessary as well as construction of bridges across trenches, gullies and streams.

Engineer forces on road work will also take charge of trucks that have broken down and clear the road so as to keep traffic moving.

4. Duties of Corps Engineers after attack.

After the objectives have been attained, those Engineer troops that can be spared from urgent road work will be utilized in consolidating the positions.

. . . . . .

5. The Corps Engineer of the 4th Army Corps is also charged with the construction of such roads, trails, trench crossings and trench bridges as the Commanding General, Army Corps Artillery, may require to push forward his batteries. The Chief Engineer 4th Army Corps will arrange to improve the existing camouflage and to construct the necessary camouflage for all A.C. dumps described in this plan and for such communications, loading points, etc., in the A.C. zone which require it.

. . . . . .

The dumps for carrying out the work assigned to Divisional and Corps Engineers were organized with supplies of Engineer material as follows:

. . . . . .

Supply of Engineer Material

1. The operation of Corps Engineer Troops within the Corps Area will be directed by the Corps Engineer.

2. Material:

Army Dumps..... { Domgermain, Menil-le-Tour, Manonville, Léonval

THE CHURCH AT SEICHEPREY

Corps Dump.....Ansauville

Divisional Dumps:
1st Division.....Mandres
42d Division.....Bernécourt
89th Division.....Bernécourt

Dumps containing road material:
Rauiecourt
Deletoille (cross-roads east of Bois Nauginsard)
Mandres
Noviant

3. As the advance progresses Division and Corps dumps will be advanced as necessary. Chief Engineer of Corps will arrange to establish forward dumps by salvage from captured German dumps and to keep Division Engineers advised of location of such dumps.

. . . . . .

As stated in the order the most important work assigned to the Corps Engineers was the building and repair of roads and bridges. Inasmuch as the bridges after the attack remained practically intact, our principal work became road work. In this connection it is again interesting to turn to the Field Order and note the roads of importance and how they functioned in the advance.

. . . . . .

2. Roads.

(a) Corps Axial Road.

Toul — Menil-le-Tour — Bernécourt — Flirey — Essey — Pannes — Beney — Saint-Benoit.

(b) Division Axial Roads.

1st Division.

South to north.

Pagny-sur-Meuse — Mon Forre — Charrière — la Belle — Ruale-court—Broussey — Rambucourt (by arrangement with Commanding General 2d French Colonial Corps) — Beaumont — Seicheprey — Saint-Baussant — Essey (western outskirts) — Pannes — Nonsard — Vigneulles.

North to south.

Axial road to Broussey — Gironville — Jouy (by arrangement with Commanding General 2d French Colonial Corps) — Corniéville Mon Forre — Boucq.

42d Division.

South to north.

West of Toul — Lagney — Sanzey — Tuilerie — road south of Étang — Rome — Grange-en-Wœvre Étang — road east of Étang Neuf-de-Mandres — Mandres — Saint-Dizier — Flirey — Essey (eastern outskirts) — Pannes (road to be constructed from Essey to Pannes parallel to main road) — Beney — Saint-Benoit.

North to south.

Axial road to road junction at Grange-en-Wœvre Étang — road south through Bois-de-Boucq — thence east and south to road junction near Léonval — south through Bois-le-Foncel — thence to road through southern edge of Bois-de-Lagney — Croix Jurée — Lagney.

89th Division.

South to north.

Corps axial road from east of Toul to Flirey — Limey — unimproved road along Corps' east boundary to center of Bois d'Euvézin — Point 246 — Bouillonville — Point 283 — Xammes.

North to south.

Same route.

3d Division.

Corps road to Area. When ordered forward will use Axial Road of the Division in whose sector they move.

Axial roads will be marked by signboards bearing numerical designation of divisions.

The road Royaumieux — Minorville — Noviant — Limey is given to 1st Corps for Axial Road of 2d Division. This road may be used for evacuation of sick and wounded.

(c) Lateral roads.

Euville — Vertuzy — Troussey — Pagny-sur-Meuse — Lay Saint-Remy — Foug — Toul.

Corniéville — Boucq — Menil-le-Tour — Manoncourt.

Bouconville — Beaumont — Limey.

Empty horse-drawn vehicles and horses will use the roads and tracks other than axial roads as far as possible.

(d) Army and Corps:

Will use the axial roads of the Division nearest their line for supplies and evacuation.

(e) Road circulation:

1. The road system of the Corps is divided into zones:

(a) The Corps zone covers all territory within the Corps sector between the roads:

Euville — Vertuxy — Troussey — Pagny-sur-Meuse — Lay Saint-Remy — Foug — Toul (inclusive).

Corniéville—Boucq—Sanzey—Menil-le-Tour—Andilly (exclusive).

(b) Divisional zones include all territory within their respective sectors, north of Corniéville — Boucq — Sanzey — Menil-le-Tour — Andilly (inclusive).

NO MAN'S LAND ON FLIREY HILL

(c) Regulations covering traffic within Divisional zones will be prepared by Divisions but must conform to G. H. Q. traffic regulations.

(d) Corps Axial Road is free for all vehicles both ways.

(e) The circulation maps for Corps zone showing the Corps and Division axial roads will be furnished each Division.

. . . . . .

As far as the 4th Corps was concerned four axial and one lateral road played the important rôles of lines of communications. It is to be noted that the Flirey–Essey–Pannes road, the Corps axial road, served as the outlet for the 1st, 42d, and 89th Division axial roads. The road for the 1st Division joined the Corps road, after passing through Beaumont, Seicheprey, and Saint-Baussant at Essey. The main line of communication for the 42d Division joined up immediately at Flirey *via* Beaumont, and the 89th at Toul, leaving the Corps road at its junction with the 42d Division road. Thus can we liken the road system for the divisions of the 4th Corps unto an arterial system, the Corps axial road functioning as the jugular for the offensive. It is seen that the latter was used for the passage of all troops of the Corps from Toul to Saint-Benoit, and that each division of the Corps front made use of this road during some part of its entire length. From Toul to Flirey the 89th Division was authorized to use the road; from Flirey to Essey, the 42d; and from Essey to Pannes, both the 1st and 42d Divisions. At the latter place, the 1st branched off through Nonsard to Vigneulles, while the 42d continued to use the Corps road to Saint-Benoit.

Passing down through the middle of the basin of the salient, as the Corps road did, and, capable of two-way traffic at all points except one short stretch, we worked up on the first few days between Flirey and Essey; it is not hard to understand just how important a line of communication it was for more than 100,000 troops. The transportation of supplies of all descriptions depended upon the use of this road to reach their objectives with a minimum loss of time. That is the reason we found ourselves assigned to duty on this important highway the day of the attack. As long as we kept it open for the passage of supplies and ammunition, just so long were we assured of the complete success of our arms. Once the supplies had passed the crucial point, the road

work resolved itself into maintenance. This permitted the use of a smaller number of troops and a distribution of the companies for work on the Division axial roads at those points where they crossed the German positions and were liable to repair or reconstruction. This is what actually occurred in the course of a few days after the 12th; each company found itself assigned to a particular section of lateral, Division, or Corps road.

It is not to be inferred that because no mention has been made of the Metz highway, the Rambucourt–Beaumont–Flirey–Limey road, that it did not play an important part in the offensive. As a matter of fact, this line of communication served as the lateral liaison between Divisions and Corps; and in the event that an axial road became impassable, the highway served to relieve the congestion of traffic and permit vehicles to make détours to either flank, there to make use of some other route to the front or rear areas.

DESTROYED BRIDGE AT FLIREY

CHAPTER VI

THE GERMAN POSITIONS FROM GERMAN DOCUMENTS AND MAPS

When the first pressing need for constant application to duty had reached the point where personal investigation could be conducted over the newly captured territory, many interesting documents, papers, and maps were brought to light from their hidden recesses that served to give a better understanding of the military situation and a clearer conception of what the remaining indications of some obliterated field fortifications represented.

Our artillery preparations had been so efficient and so concentrated at different points along the German lines of defense as to render it difficult to understand intelligently the part some of the defenses played in the attack. German maps and documents, however, were taken from dugouts in the Bois de Mort Mare, during one of these personal tours which resulted in a better understanding of the enemy's system of defenses. This information was later enlarged upon by the acquisition of additional maps from a German technical bureau in Fentsch, which were found after the cessation of hostilities and during the advance of the Army of Occupation. This particular bureau had evidently been operated in connection with a topographical office, the duties of which seemed to be confined almost entirely to the territory between Étain and Verdun on the north and Pont-à-Mousson on the south. This, of course, encompassed all of the Saint-Mihiel Salient and the country beyond.

Although there were not enough maps present to reveal information upon every division and sub-division of the front of the 1st Army, seven maps were discovered which covered rather extensively the 4th Corps sector and the German defenses that fell within the boundaries of that sector. Some of these have been reproduced below in connection with the discussion, to aid the reader in his understanding of the subject. Before proceeding to the discussion, however, it is necessary to have a clear under-

standing of the legends used on German military maps. This might be interpolated by the figures and symbols alone, but oftentimes the meaning of the German phrases opposite the symbols are an aid to the reader. These are given below as they appear on the Seicheprey map.

(a) Feindl Graben, etc., — means enemy trenches (French and American) as photographed by their aviators.
(b) Eigene Graben — our fire trenches (German).
(c) Unsichere oder im Bau, etc., — concealed trenches.
(d) Sprengtrichter — mines.
(e) Beobachtung — observation points.
(f) Maske — deceptive battery and gun emplacements.
(g) Lager — shelter for troops, ammunition, or supplies.
(h) Vielbenutzte Wege — much-used trails.
(i) Feldbahn — narrow-gauge for pushing up supplies and ammunition.
(j) Forderbahn — narrow-gauge for use of troops.
(k) Drahtseilbahn — narrow-gauge with cable traction.
(l) Drahthindernis — entanglements.
(m) Befehlsstelle — point of command.
(n) Battr. Stellungbesetzt — occupied battery position.
(o) Battr. Stellungunbesetzt — unoccupied battery position.
(p) Flak — anti-aircraft emplacements.
(q) Minenwerfer — Trench-mortars.
(r) Maschinen Gewehr — machine gun.

Just as we have our "secret" maps relating to front-line defenses, so are German maps bearing upon the same subject marked "Geheim," meaning "secret." Below the word "Geheim" invariably enclosed in an outline appears the phrase "Abgeschlossen am," meaning "printed or drawn and finished on" — such and such a date which is indicated by numbers as follows: 19. 3. 18. meaning the 19th of March, 1918.

Proceeding to a study of this same map, which takes in the defenses of Saint-Baussant east to a point about one kilometer to the east of the Flirey–Essey–Pannes road, there are seen two distinct lines of defense, the second position being particularly featured by the excessive amount of entanglements. The first position takes advantage of the crest of the Flirey Hill and comprises two distinct trench systems, evident only on the right and left flanks, there being a short gap on the right center of the line.

MAP SHOWING GERMAN POSITIONS

Made from German Map found on field

Every advantage was taken of a field of fire and an attempt to secure observation of American troop movements at all times. To do this the Germans pushed their outpost system well forward on the slope of the hill and withdrew their first line of resistance to the reverse slope, commanding excellent fields of fire and made more difficult of capture by a maze of permanent and portable entanglements. In fact, it is wondered how any troops could surmount these obstacles and take the position without an enormous loss of life. The seemingly impossible, however, had been done without any unnecessary sacrifice.

Excellent artillery preparation and well-timed infantry advance had wrested this stronghold from the enemy without any great effort on the part of our troops. The outpost position comes to a decided point of furthermost advance on the railroad to the left of the Flirey–Essey road, and slopes backward on the enemy's left flank across the road into the Bois de Mort Mare, where the heavy foliage and reversed slope offer excellent concealment of the positions, and backward on the right flank in the general direction of Saint-Baussant. This latter position, however, retained possession of the heights and the advantage they offered for observation. The entire outpost system, similar to both lines of resistance, was heavily wired its entire length. For four years the Germans had fortified this position with every kind of an entanglement known to modern warfare. Nor is that all: the entanglements were charged electrically by means of a very elaborate system of central stations, sub-stations, overhead and underground cables as treated elsewhere in this chapter.

There can be little question but that it was the intention of the Germans to hold this ground at all costs. The elaborate preparations and fortifications on all sides were circumstantial evidence of the fact. Dugouts had been pushed as far forward as this first trench system and made to withstand artillery fire and to hold large numbers of troops to defend the position. Once the first line fell, the attacking forces came under the fire of the defending forces in the first line of resistance marked "2 Linie" on the map. This system skirted the Sonnard Wald, crossed the road and disappeared into the Bois de Mort Mare.

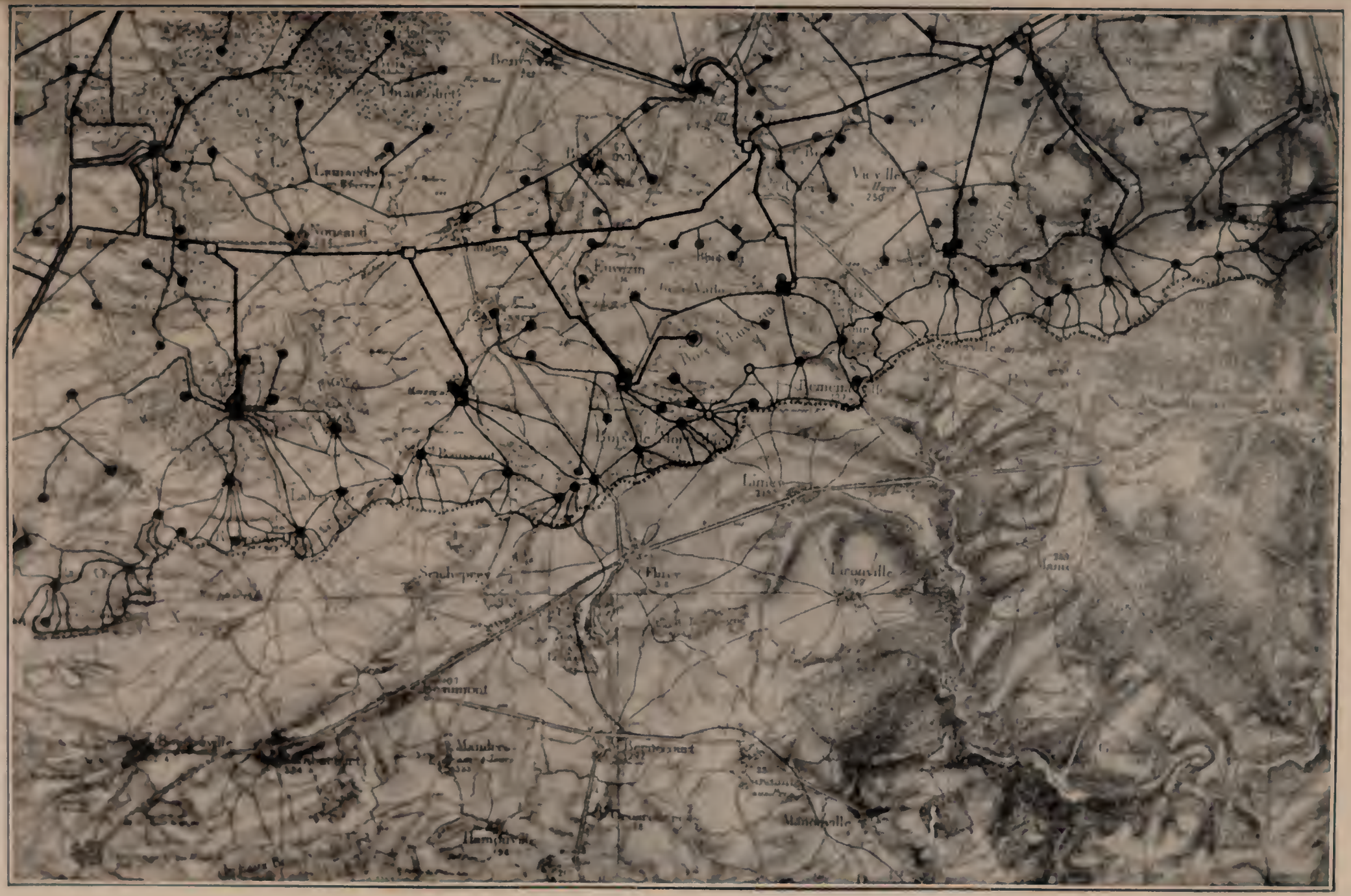
This first line of resistance was essentially a support line, the

flanks of which were especially well protected and the avenues of ingress beset with every conceivable difficulty. This was evident throughout the distance between the first and second lines of resistance, the latter being marked "3 Linie." It is to be noted how the highway was crossed and recrossed between the edges of the woods on either side with little systems of entanglements, and how the trench developed along the railroad adapted itself to lateral and flanking fire on the road. The same thing is true of the Feldschneiss Avenue running at diagonals to the road and to the right. Every advantage was seized to throw the attacking forces into the wood or arrest their advance in the open.

On the enemy's right flank, between the Sonnard Wald and Saint-Baussant, the open ground was covered with machine-gun and rifle fire from the village and from the woods. At first glance it looks as though the left flank of Saint-Baussant could never be penetrated. Attacking troops were not only exposed to fire from wood and village, but also from the combat groups indicated by the circular entanglements to the rear of the line of resistance. These were protected in turn by groups located on the north edge of the woods, firing to the north and to the west in the event of a penetration of the line of resistance.

The Germans particularly seem to have made extensive use of the development of small strong points, connecting them with a trench system and protecting them heavily on all sides with wire entanglements and the cross-fire of adjacent combat groups. This second line of resistance, in reality the main line of resistance for the entire first position, presents a very formidable barrier to attacking forces. The elaborate system of wire defenses, trenches, dugouts, and machine-gun emplacements would have exacted a great toll of life had not the artillery registration, as in the case of the first line of resistance, been so accurate. Once this last system was broken down and penetrated, the attacking troops found themselves emerging from the woods and Saint-Baussant out upon the rolling open ground in front of Essey and Maizerais.

Through the latter village east along the heights to the south of Essey and west to the marshy ground in the Gargantua Forest, another position had been developed to arrest the progress of the advancing troops. The Forest contains a series of small lakes



MAP SHOWING ELECTRIFICATION OF GERMAN DEFENSES AND LIGHTING SYSTEM

which were connected by a system of entanglements and trenches and strong points which likewise temporarily held up the attack.

Varying in distance from two to three kilometers, and farther to the north, still another defense had been prepared, running in a southwesterly and northeasterly direction, passing through Nonsard and to the north of Pannes, along the heights north of Bouillonville and between Xammes and Thiaucourt, finally swinging eastward north of Jaulny and northeasterly through the Grand Fontaine Wald. Two distinct positions were developed along the lines of the preceding systems. The fall of these paved the way for the final realization of the army objective.

It will be recalled, from the attack order in a preceding chapter, that the first phase of the first day found our troops facing this Nonsard–Thiaucourt position from the heights to the south of the Madine River and Rupt de Mad; that the second phase of the first day found this position in our possession, and that on the second day the line had been pushed back to the Viéville–Hattonville front which was north of Saint-Benoit, between Xammes and Charey, and north of Jaulny. Thus, three systems of defense, embracing all of the resistance lines enumerated above, had to be broken down — the first passing east and west through Saint-Baussant and north of Flirey; the second, through Maizerais and south of Essey, and the third, through Nonsard and north of Thiaucourt. Each presents a formidable obstacle and each was worked out with the usual employment of German military efficiency and knowledge. Had the Germans made any stubborn resistance or displayed any of the fighting spirit exhibited on other fronts the year before, the story would have been very different in the number of dead and wounded. As it was our casualties were very light.

The accompanying map is a reproduction of a German map showing how the Germans wired the salient throughout with electricity. A good share of the power was used for illumination purposes, being extended to dugouts and shelters. A portion of it was employed in charging the front-line wire entanglements from Apremont to Norroy. It is an elaborate system, entailing a good deal of labor — another example of German efficiency and mastery of details in matters of this description. Just how

effective the electrically charged entanglements were is not known. The work alone, however, is interesting in itself as an example of how extensively the enemy employed the means at his disposal, to assure the security of his position.

More clearly to understand the reading of the map the following translation of the legends is necessary:

(a) Leitung — an electrical conductor.
(b) Hauptschaltstelle — central station.
(c) Schaltstelle — central sub-station.
(d) Umformerstelle — transformer station.
(e) Licht- u. Kraftanlagen — electrical machinery and accessories.
(f) Verteidigungsanlagen — electrical accessories one must constantly be on guard against.
(g) Gefechtesschaltstelle — central station near the front line.
(h) Elektr. Hindernisanlage — electrically charged wire entanglements.
(i) Kabelleitung — underground cable conductor.

Thus the expression "Umformerstelle 3000/210/120 Volt" means that at that particular point on the map indicated by the symbol, there is a transformer station transforming the voltage first from 3000 volts and finally from 210 to 120 volts. These stations, especially near the front, were usually carefully concealed in the woods and placed underground.

The dugouts were very elaborate, containing all the electrical equipment known to modern science. The cables and conductors were carried overhead to a station located anywhere from five hundred meters to a kilometer from the outpost line. From that point forward they were run underground to the entanglements. The cable was laid about twelve inches below the surface and indicated frequently by arrows pointing toward the ground. The direction to the transformer and central stations was usually indicated not only by arrows, but by a red band four to six inches wide, running entirely about the trunk of a tree.

The whole system of stations and conductors was very carefully worked out so that any part of it could be very easily picked up from any point in the woods. At the time of the attack, the Germans succeeded in either destroying or removing most of their electrical machinery before it could be captured. A few of the motors and transformers, however, fell into our possession,

and were duly guarded and turned over to the proper authorities for examination and repair.

One might question the wisdom of attempting to charge entanglements and venture many opinions regarding the success of such an enterprise. No information at the time of writing is available upon the subject, but granting that the project did fail, two psychological purposes were fulfilled — it gave the defenders a feeling of security, whether they had it or not, and it kept their minds and hands occupied, where idleness might have bred discontent and hastened the termination of the war.

CHAPTER VII

DUTIES OF A CORPS ENGINEER AND CORPS ENGINEER TROOPS

With the arrival of orders in the fore part of September to move to the front and begin operations in the field following the offensive, the regiment became a part of the 4th Corps, and was henceforth known as a Corps Engineer Regiment. Between the time of arrival in the field, September 12, 1918, and the cessation of hostilities, the regiment found itself under the command of three Corps Engineers. Colonel James F. McIndoe was the first commander; he was soon followed by Colonel William Kelly, who in turn was replaced by Colonel R. R. Ralston. The latter has commanded the 4th Corps units from the time of operations in the field up to the present time.

The duties of a Corps Engineer and the troops under him are elaborately covered in Engineer Field Notes No. 44. These, in addition to those already given in another chapter in connection with the attack order of September 8, should suffice to give a clear understanding of the duties of each:

B. Duties of the Chief Engineer of a Corps

7. In each corps there will be a chief engineer who will command the corps engineer units. He is the adviser of the corps commander and the corps general staff in all matters that pertain to the engineer service. To properly perform his duties he should have the latest information of the enemy, of our own troops, and all other pertinent matters. To carry out his duties, he is provided with the necessary military and civilian assistants, with general authority to employ civilian labor, and to make proper purchases and disbursements. The chief engineer of the corps will keep the corps commander informed in regard to engineering matters and will make such recommendations as he considers necessary concerning engineer personnel, material, and methods. He should be consulted as to the location of defensive lines and fortifications; the use, training and assignment of engineer personnel and troops; the engineer training of other troops and their detail for engineer operations.

8. In accordance with the general plan of operations and in coöpera-

From Sketch by Cowan

FLIREY

tion with G-3 of the corps, he will prepare the general plan of action for all the engineer units of the corps. He will insure the coöperation of the engineering plans of the divisions, and supervise the employment of all engineer troops of the corps or lower units throughout the corps in accordance with the approved plan. He will prepare detailed plans for the engineer units under his direct orders. He may require direct technical reports relative to engineer operations from any of the commanding officers whose work is under his technical supervision.

9. Under the authority of the corps commander, the chief engineer is charged with the collection, dissemination and utilization of military engineering information within the corps; and the necessary liaison with the engineer service of the army and of the neighboring corps.

10. The principal activities of the chief engineer, corps, may be inferred by reference to the duties of the corps engineer troops. Acting under the corps commander, he will construct, operate and maintain within the corps zone only so much of the permanent and semi-permanent facilities with which the army is charged as are assigned to the corps by the army, or as are necessary to serve the corps troops, except that the operation of trench tramways is usually a corps function, and he will:

(a) Supervise and plan fortification work or rear positions.
(b) Coördinate drainage operations which extend across more than one division sector.
(c) Provide the corps artillery with sufficient technical assistance to insure the proper use of engineer supplies by artillery forces.
(d) Provide engineer supplies for the corps troops.
(e) Execute all engineer duties not enumerated above which may be essential to the proper functioning of the corps.

He will recommend to the corps commander the temporary allotment of the following classes of personnel and equipment to divisions and to corps troops in accordance with their needs:

(a) General engineer equipment.
(b) Bridge tools and bridge equipage.
(c) Ponton equipage.
(d) Labor troops.

B. Corps Engineer Troops

Corps Engineer Regiment.

33. The corps engineer regiment will be employed upon the following duties.

(a) Communication sufficient to insure the passage and supply of the corps troops. As soon as practicable corps engineer troops should be relieved from duties pertaining to communications by army engineer troops and should then be moved forward to

relieve the division engineer troops from such of these duties as can properly be turned over. These communications include:

I. Ponton — These bridges should be taken up as soon as possible, being replaced if necessary by another type of bridge. They should be built by corps or division engineer troops.

II. Sectional steel bridges.

III. Timber bridges.

IV. Tramways for the entire corps zone. When tramways are used during active operations it will be necessary for division engineer troops to construct and operate the advance lines until the corps engineers are able to take them over.

V. Roads.

(b) Rendering assistance to corps troops in a manner similar to that in which divisional engineers assist troops of the division.

(c) Construction of subways and dugouts.

(d) Fortification work on rear positions.

(e) Engineer construction including general construction in corps zones not assigned to other engineer troops, or for which no other engineer troops are available.

34. The corps should be trained in bridging, in the construction and operation of tramways, in general construction, and in the construction of subways and dugouts, roads and fortifications. Until such time as the entire regiment can be trained to perform all these duties, one company should be specialized in subway and dugout construction, one company in the construction, operation and maintenance of tramways, one company in the construction of heavy timber and sectional steel bridges, and one company in the construction of ponton bridges. To be properly prepared for mobile warfare, the entire regiment should be skilled in the construction of all three classes of bridges.

Corps Ponton and Bridge Park.

35. The personnel of the corps ponton and bridge park is charged with the upkeep of all corps bridge material and with the delivery of the same to the points where it is to be used.

36. Ponton equipage should, when needed, be temporarily attached to divisions. Divisional engineers should construct these bridges. Where divisional engineer troops are urgently needed for other duties, bridge material, with sufficient personnel from the corps engineer regiments to handle it, should, where needed, be temporarily attached to the divisions. Where sufficient engineer personnel is not available working parties from the infantry or other troops should be assigned to assist in ponton bridge construction.

37. Sectional steel and heavy timber bridges built from material of the corps ponton and bridge park should normally be constructed by personnel from the corps engineer regiment. Where there is not suffi-

RUINS OF FLIREY STATION

cient corps engineer personnel available to furnish the entire detail for construction, the corps engineer regiment should furnish skilled foremen to direct the operations of working parties drawn from division engineer regiments or other troops.

Corps Pioneer Regiment of Infantry.

38. The pioneer regiment of infantry which belongs to the corps troops of each corps forms a source from which additional working or carrying parties for fortifications, communications, or other engineer work can be drawn. The corps engineer should recommend to the corps commander the training and use of such of these troops as can advantageously assist in engineer operations.

39. Whenever details of this regiment are attached to engineer organizations, effort should be made to change them as seldom as practicable, and when such changes are made, to always attach the same pioneer personnel to the same engineer organization, in order to secure the team work necessary for efficient operation.

CHAPTER VIII

SHELLING OF HEADQUARTERS AND DISTRIBUTION OF THE SECOND BATTALION AFTER THE FIRST DAY

Regimental Headquarters, 1st Battalion, Headquarters Company, and the Medical Detachment were located in an open field on the right of the road about two hundred meters north of the cross-roads at Flirey. Around it were the old French trench lines and wire and the trenches used by the Americans. The personnel was housed in large pyramidal tents, which by their newness and position in the open were conspicuous, but little thought had been given this, for up to the present time no enemy fire had reached the vicinity, and during the preceding days all the surrounding ground had been filled with the pup tents of the companies which now had been distributed on different roads. Moreover, the never-ending column of traffic always presented an attractive target. However, the motives of the enemy are often far from obvious, and, of late, it had been noticed that his activity in the air was increasing, undoubtedly due to the withdrawal of many of the Allied planes for use on other fronts.

It was while here that many officers and men learned to distinguish enemy planes from Allied planes, by sound. Hardly a night passed but German planes, singly and in squadrons, passed over, as a rule on reconnaissance, but often bombs were dropped on points considerably to the east of the cross-roads. Great precautions had to be taken; the lanterns within the tents had to be shielded; no bonfires or ashes of bonfires were visible after dark; nor kitchen fires permitted before daylight. On clear moonlight nights, the planes caused not a little unrest, for often they flew very low, despite the anti-aircraft guns in the vicinity which filled the air with shells. Also, on several occasions uneasiness was caused the platoons at work on the road near by, when one or several low-flying planes followed along the white line of the

From Sketch by Cowan

THE TOWN OF MONT SEC

road. On dark nights the many searchlights would converge on a plane, outlining it perfectly, and enabling the anti-aircraft gunners to see their target. Only on rare occasions, though, was a shot successful.

About three o'clock on the afternoon of September 18, shells began to land to the north and south of the camp, some of them bursting at first within fifty yards' range. An effort was made to gather the men into a formation and evacuate them to a point of safety, but, inasmuch as the shell-fire drew closer and began to jeopardize their positions, each man shifted for himself. The shelling continued for a period of possibly an hour. At the end of that time members of the company and staff returned to discover that shells had exploded near the kitchen tent, riddling pans and pots and rendering useless the kitchen for cooking purposes that night. The tent of the Regimental Commander was so cut by fragments as to make repairs impossible. The fresh earth and grass were thrown over the whole camp and the strong, acid smell of the explosive had penetrated every corner. Had this shelling occurred a day or so earlier, before the companies had gone, there would have been many casualties. It is quite probable that the enemy, having placed his heavy guns in new positions by now, had attempted to shell the cross-roads to cut off traffic on the main artery and anything in the immediate vicinity would come under the fire. Later, the shelling of this point with shrapnel became a frequent occurrence.

As soon as firing had ceased and darkness had fallen, the camp was moved to a point behind the narrow-gauge railroad at the Flirey Bridge. This was not completed till late, and with a scanty meal all were glad to find a convenient place to sleep; but not for long, for, at 3 A.M., the 19th, it became impossible, due to a resumption of the fire. Shells passed over and around and some on the ridge ahead, just where, no one could judge. Those who were unable to remain lying down with the heavy vibration in the air, whiled away the time watching the distant flashes of guns and the not so distant bursts of the shells. It was only with the arrival of dawn that the fire subsided. A camp of Service Battalion negroes near by had some hair-raising tales to tell next morning.

As there was no object in maintaining a position so exposed, it was deemed advisable to choose a more favorable location for the administration of the regiment. The transfer of Headquarters from Flirey to Bernécourt assured comfortable and safe billets, where operations could be carried on without interference, and the establishment of a hospital by the Medical Department, that would serve all members of the regiment more efficiently than if it had remained in the field. Headquarters remained in Bernécourt until the Army of Occupation began its forward movement, November 16, 1918.

Under command of Captain Waldron, Company "D" passed part of the night of September 12, loading lumber upon flat cars at Ansauville from the Engineers Dump, to be sent forward to the Divisional engineers. In conjunction with units of infantry, the latter were using this material in the construction of roadways, bridges, and shelters. During the early hours of the morning of the 13th, the company moved to Flirey to assist the other companies of the regiment in their important work on the Corps axial road. It remained on the Flirey–Essey and Flirey–Limey roads until the 20th, when, in accordance with orders from Headquarters, it moved to Seicheprey to aid "B" Company on the Seicheprey–Saint-Baussant–Essey roads, making the usual repairs and establishing the customary road details. On the 22d of the month, the company was assigned to work at Fey-en-Haye, two and a half kilometers south and one kilometer west of Vilcey. The nature of the work, the difficulties encountered, and the progress made are discussed in another chapter.

On September 18, Company "E" moved to a point between Remanauville and Limey and began to make repairs on the roads connecting these two villages. It was at this place that Lieutenant Kelly was transferred from Company "F" to Captain Shaw's company in accordance with his own request, the change in assignment occurring on the 19th of the month. The company's stay in this locality was of short duration, however; on the 20th they moved to Seicheprey assisting "B" Company in its work of road repairs in much the same manner as had "D" Company. Once again, however, the company was due to resume the march, and on the 22d of the month it moved to a point between Fey-

ESSEY

en-Haye and Vilcey, a distance of seventeen kilometers from Seicheprey. At this point Lieutenants Cunningham and Cheshire were transferred to the 302d Engineers.

After its completion of the work on the Ansauville dump and road work on the Flirey–Essey highway, Company "F" moved to Fey-en-Haye on the 24th to join Companies "D" and "E." Thus the 2d Battalion found itself operating as a unit again. It was temporarily placed under orders from the 6th Army Corps and devoted its efforts to the building of a road from Fey-en-Haye to Vilcey.

The Train, under command of Lieutenant Reynolds, was stationed south of the Flirey–Limey road at a point about one kilometer from the former village. Upon this organization rested the responsibility of supplying and operating motor trucks and escort wagons in the field of operations. With the arrival of six new Liberty trucks on the 20th of September, each company was assured of some transportation part of the time. Wagons and trucks were used to haul road material and rations to the organizations at their different stations in the field. At the time that Headquarters moved to Bernécourt, the Train followed and in conjunction with the supply offices established an efficient dépôt where repairs could be made and oil and gas obtained upon request. This company remained in Bernécourt until the 10th of November, when it moved forward to Thiaucourt to participate in the offensive of the Second Army.

Bernécourt, Regimental Headquarters, is located on the Corps axial road which passes through it and down to Toul. It had, in the first years of the war, been shelled by the enemy, but many of the buildings still remained, though there were none which had wholly escaped. Roofs were either completely gone or there were great holes in them, corners had been blown off the houses and in many cases the walls on one side laid flat; but with repairs it was possible to use some as billets. The cellars were built up with heavy concrete masonary or sandbags, and dugouts were constructed from time to time as the countless different French and American units came, lived in them awhile, and moved out. The streets were in fair condition, and the public wash-house permitted of water connections for hot shower baths for the men.

Going toward the front, it was the last town which bore any semblance to a town — Flirey, Beaumont, Limey were only heaps of stone. In it were a few French inhabitants who maintained a livelihood by selling articles of very poor quality for a very high price.

The code word for the regiment was "Nantucket," "Nemo" for the 4th Corps, and "Doodlebug" for the Third Army when it was formed. The use of a code was necessary because of the many and efficient listening apparatus used by the Germans by which they could overhear telephone conversation for several kilometers behind the front. Orders required that no numbers or locations of units be mentioned over the telephone, or ranks of officers; when speaking of an officer he was known as "Mr." Jones, though he might be a general.

The church on the main street consisted of the walls, the tower, and a portion of the roof, and had provided a leaky shelter for many hundreds of soldiers in the past years. Here Chaplain Ramsay held the funeral service of Lieutenant Ibell; probably the first time the church had been used for this purpose since 1914.

When Headquarters first arrived in town, it was occupied by other units and so crowded that it was necessary to use splinter proofs for some days; later, by making repairs on a building which had once been a fine house, very comfortable quarters were provided. A bath constructed of odds and ends of plumbing and heating devices, electric lights, a well-arranged mess, and extra rooms for company officers who might come in for medical treatment, were features which made living conditions not so hard. In an upper room was the office of the Regimental Commander and Adjutant. Headquarters Detachment and the Train had good billets and of a fairly permanent kind.

In regard to location the town was well chosen, for it was opposite the center of the front upon which the companies were working and easily accessible to Corps Headquarters at Menil-la-Tour and later at Boucq. The railhead was at Manoncourt, which was about twelve kilometers distant, through Royaumieux. This was an important factor, for, as a Corps unit, the regiment had not the facilities for drawing supplies which Divisional units

"B" COMPANY AT SAINT-BAUSSANT

have. In the immediate vicinity were also Engineer Dumps from which material for ammunition dumps and other construction work was used. Headquarters remained here until the proposed drive on the Corps front, when it moved temporarily to Saint-Benoit.

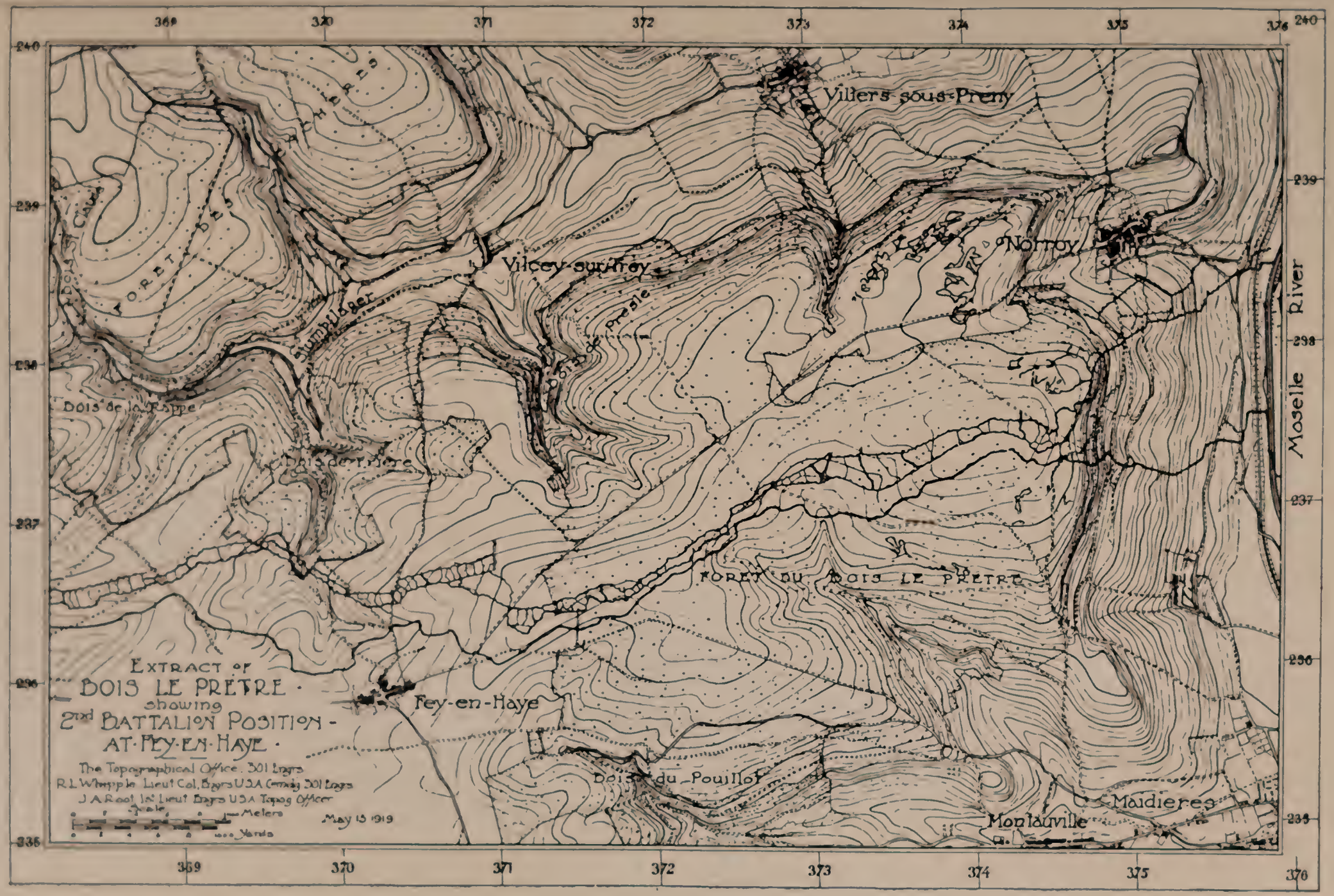
CHAPTER IX

THE SECOND BATTALION AT FEY-EN-HAYE

On the 22d of September, acting under the direction of Colonel Pope, then in command of the 315th Engineers, 90th Division, 6th Corps, the three companies of the 2d Battalion, commanded by Major Porter, entered the ravine north of Fey-en-Haye known as "Death Valley." To the 2d Battalion was also attached the 2d Battalion of the 51st Pioneers. The name "Death Valley" came from the troops who had figured in the opening of the offensive on the 12th, and inasmuch as it had passed down to each succeeding unit that occupied the place, it had come to stay and to be used as a by-word wherever referred to by the "doughboys" or any one else who ever had anything to do with the ravine. The name grew out of the peculiarity of its position and the fact that the valley was subjected to enemy fire not only from the north, but from the heights east to the Moselle. This condition of affairs can be attributed to the bend in the Hindenburg line on that front, which swung far enough to the south, in its crossing of the Moselle, to permit the Germans to locate their guns at vantage-points commanding the country of which Death Valley was a part.

The valley proper begins in the southern part of the Forêt des Venchères and a branch of it runs south into the Bois de Frière. From this point the valley runs northeast through Vilcey, Villers, and Vandières on the Moselle. In other words, its general line is almost perpendicular to the German positions as they were at that time. Consequently the 2d Battalion was entering territory that could be called anything but free from danger to troops and transportation.

Where the valley running north of Fey-en-Haye joins the valley through which runs a small stream called the Frey, is a triangular-shaped section of valley called by the Germans who had occupied it "Der Stumpflager"; signs on the roads directed troops toward it, "nach Stumpflager." Our infantry had been exposed to the flanking fire of machine guns and had en-


Extract of
Bois le Prêtre
showing
2nd Battalion Position
at Fey-en-Haye
The Topographical Office, 301 Engrs
R.L. Whipple Lieut Col. Engrs U.S.A. Comdg 301 Engrs
J.A. Root 1st Lieut Engrs U.S.A. Topog Officer
Scale
Meters
Yards
May 15 1919
Villers-sous-Prény
Vilcey-sur-Trey
Norroy
Fey-en-Haye
Maidières
Montauville
Moselle River
Forêt du Bois le Prêtre
Bois de la Rappe
Bois de Mare
Bois du Pouillot
Bois de Presle
Forêt des Hêtres
Bois de Claire
Chumbelager
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235

countered considerable resistance from the enemy whose well-concealed positions were only sought out at a cost (see Map, 2d Battalion, Position).

"D" Company encamped on the reverse slope of the branch that runs into the Bois de Frière; "E" Company in the same wood almost on its southeastern edge; and "F" Company in a rather precarious position on the southern slope of the valley proper, about five hundred meters north of Le Fosse. To get into their camp the latter company was forced to take a circuitous route that required a half-hour's maneuvering, but was considered necessary to insure concealment from the enemy and the safety of the men. All three companies made use of former German dugouts and shelters to some degree, inasmuch as they afforded the only safe protection against the enemy's shell-fire and they were left in habitable condition by the Germans.

The companies began their work on the Fey-en-Haye–Vilcey road, and on a small cart road running down through the valley that required widening and rebuilding to make it passable and capable of two-way traffic. In performance of these tasks, the same conditions held true that existed for the 1st Battalion. The rock had to be secured from near-by ruins and broken by hand. When the 2d Battalion arrived in the valley, some of the work was already being carried on by the Pioneer Infantry, and, though the roads were in miserable condition, the Pioneers had succeeded in stemming their complete disuse until reinforcements arrived. The main highway between the two towns was under constant shell-fire and continued observation.

The fact that there were few casualties does not indicate that shelling was not prevalent. As a matter of fact, it was a daily occurrence and of such intensity at times as to demand the withdrawal of the troops for the time being. Many and humorous incidents have been related of "duds" dropping at a man's feet, the explosion of shells burying with débris the occupants of shell-holes, and shell splinters brushing the hands and clothing. Yet through it all the men "carried on" and accomplished their mission. Another incident is related of how the men set their watches with the arrival of the first shell each morning. It is claimed the enemy timed their firing to the minute, and that at 10.30 A.M.

shelling might be expected, lasting just long enough to complete a series of ten or twelve bursts, followed intermittently by successive series. The fire was directed on clear days by aerial observation, both by plane and by balloon. The accuracy of the aim always proved more noticeable in such instances and jeopardized the position of the men.

It was on one such occasion that a plane, more bold and aggressive than the rest, flew very low and showered German propaganda upon the working parties below. The Germans resorted to such means of informing the Allied forces that they were attempting to conform to the principles laid down by our Government and reform their own political policies in the Empire to prepare the way for peace. Their propaganda, however, did not have the desired effect; if anything, it tended to crystallize one's ideas more effectually to push the contest through to a decisive victory. At another time a German plane attacked an Allied plane, causing it to volplane toward the ground, firing upon it as it descended. When the Allied plane, badly damaged, had made a landing, the German flew parallel with and directly over the road upon which the men were working, firing continuously, the bullets snapping into the earth and gravel with a deadly accuracy.

Inasmuch as fires could not be started until after daybreak, the preparations for the morning mess were made the afternoon previous. There were no bugle calls sounded or any formations held. In fact, this was a rule in evidence throughout the front. The men went at their work quietly and without confusion. Oftentimes they were called upon to aid in the shifting of a battery position, the latter being accomplished by means of cables and ropes. But these duties were the exception rather than the rule. Road work occupied the greater share of their time; nor did it cease in that sector until the battalion was relieved on the 4th of October by the 115th Engineers, to move to Mont Sec, and to begin operations on the roads in the vicinity of that place. "E" Company did not go with Companies "D" and "F" on this new assignment, but in compliance with orders shifted their camp from the Bois de Frière to Bois du Four between Regniéville and Thiaucourt, maintaining the road between these two last-named places.

SEICHEPREY

CHAPTER X

THE DUTIES OF THE FIRST BATTALION

On the 12th of September, "A" Company was assigned to the Flirey–Essey road with the other companies of the battalion, but its road work took it as far as Essey for reconnaissance and maintenance. Inasmuch as the road beyond the Bois de Mort Mare was in good condition, the company concentrated the greater share of its maintenance to the northern slope of the Flirey–Essey Hill and a short stretch of road beyond. It was across the latter that the first tank-trap of the war was encountered. It extended across the road to the Bois Rendu on the east and Bois de la Sonnard on the west. It was nothing more or less than a very wide ditch, approximately fifty feet in width and six to eight feet deep, camouflaged to deceive the tanks as to its location. It did not seem to have ensnared any of our tanks in the attack, however, as they were by then fulfilling their missions way to the front. "A" Company filled in the trap where it crossed the road and those shell-holes and trenches that interfered with the traffic.

On September 13, the company received orders to move to Seicheprey and to work on the road at that place. To quote Captain Trott, commanding: "We arrived at Seicheprey about eleven o'clock and found a tough old hill cut in five places by trenches and hub-deep with mud. There was a line of artillery and other transportation that stretched for miles awaiting our weary shoulders. But they were equal to the task and everything went over the hill to the front. The American speed was a little too much for some of our Allies, judging from the jabbering that resulted from our efforts. At last the rush was over and we could repair the road properly by bringing up rocks from the shattered buildings of Seicheprey. A few days at this task, and then we moved to Essey where we received our baptism of fire; but as we did not exactly sense what was going on we were filled with glee at the excitement."

One afternoon about three o'clock the Regimental Commander was instructed to locate three ammunition dumps, for use by artillery in forward positions. These dumps were to be in certain districts, on metaled roads, and capable of being reached by the 60 cm. track, beside being chosen with a view to concealment from the enemy. The locations were to be made and report submitted before dark the same day, which, with the prospective sites extending over a large area of ground little known to any of the officers, was a task requiring immediate action.

Three sites were chosen; one in the Bois de Pannes, one just east of the town of Pannes, and one suggested by the Chief of Corps Artillery between Saint-Baussant and Essey. Some alternate locations were made in addition. The site at Essey was afterward abandoned when shells dropped within a short distance of it and an observation balloon in the same field was driven away by shell-fire. Limey was then decided upon as a site and one at the Bois Rendu for the 4th Corps Dump. After work had been abandoned on the dump at Essey, a temporary one was at once made ready in the north corner of Saint-Baussant.

Probably the site offering the greatest opportunity for concealment was the one in the Bois de Pannes. This had been realized by the Germans, who had filled the woods with comfortable houses, stables, rustic gardens in which the officers and men ate and drank; bowling alleys and clubrooms provided entertainment in cold weather. No artificial camouflage was used; the trees and limbs were bent over open spaces and interlaced or rows of tall bushes planted. This natural concealment left nothing which might cause suspicion in air photographs by the French. No shell-holes were in the vicinity, indicating that the French had not known the population of the woods. The whole wood was known as the Bois de la Belle Ozière, or "Weeping Willow."

When the Germans moved back and placed guns again, they frequently searched out different woods and roads with their 77's, and found the stretch of road between this wood and Nonsard an attractive target because of the traffic passing over it to Heudicourt and the Côtes towns. Usually the fire occurred early in the morning, but one night a regiment of artillery moving up was caught and one of the batteries suffered heavy casualties.

TRENCH DESTROYED BY SHELL-FIRE

RUINS OF SAINT-BAUSSANT

Not long after "A" Company began work in the woods, an observation balloon company took station on its edge. This attracted enemy planes, which every day flew over it in an attempt to destroy it, but were driven off by the anti-aircraft guns. After a time one enemy aviator succeeded in getting directly over it, and his incendiary bullets soon sent the balloon in a mass of flames to the ground. The observers, however, jumped with their parachutes and were unharmed.

The 1st of October found the company in the Bois de Pannes, halfway between Nonsard and Heudicourt. The quarters occupied by the officers were furnished with upholstered chairs, divans and beds, rugs, wall-hangings, and draperies. The place resembled a small bungalow and had all the modern conveniences of the same. In a building apart from the quarters there was a bath provided for the use of the occupants of the house — a luxury not usually found at the front. In addition, the Germans had left behind two milch cows and pianos, the latter being turned over to the members of the company for use. The men all had quarters that were comfortably heated and lighted, and the whole was connected with a system of sapling bridges and foot-paths, marked out by rails to guide one on dark nights. No other company of the regiment was ever so luxuriously quartered in the field as "A" Company in the Bois de Pannes.

In this wood the company began the construction of an artillery ammunition dump. Two plank roads, paralleling one another and running back into the woods for a distance of four hundred meters from the highway, finally circled around and joined up so as to assume the form of the letter U. These roads were built in accordance with E.F.M. No. 14, and camouflaged by bending saplings over the road and tying these together. The plank roads were 110 feet apart; halfway between them and parallel to their line of direction a narrow-gauge track was laid on a carefully graded bed. Between the track and the roads and running perpendicular to both, duck boards were laid one meter apart. Powder and fuse houses completed the construction of the dump. Ammunition brought up from the rear areas on the narrow-gauge was backed into the dump, unloaded on the duck boards, and later loaded onto the trucks going forward to the battery positions.

The company completed this work on the 17th of October and then proceeded to the wiring of the second position, which is discussed later.

On the afternoon of September 17, "B" Company ceased operations on the Flirey–Essey road and moved camp from Flirey to a locality between Seicheprey and Saint-Baussant. Work was begun immediately upon the road between the two villages. As Captain Warner, then in command of "B" Company, said, "I was ordered to move my company to the vicinity of Saint-Baussant, where I was given direction of the repair, maintenance, and construction of a net of one-way and two-way roads in a district badly cut up by shell-fire, intersected by trenches and tank-traps, and daily searched by the shells of long-range guns of the enemy." This road maintenance later was extended to include the Saint-Baussant–Essey road and the highway between Seicheprey and Mont Sec. Where these roads accommodated one-way traffic only, they were widened to facilitate the passage of two-way traffic. Trenches, shell-holes, and tank-traps were filled in and in some cases bridged by salvaged material in the form of I-beams and plank. On the 21st of September the company moved its camp to a field north of Saint-Baussant, near Maizerais, and east of the road connecting the two villages. West of the road and on the lowland of the Rupt de Mad River the company began the construction of an artillery ammunition dump. The general plan was to construct a one-way plank road four hundred meters long, parallel to the highway between the two towns and connected at both ends with it. This enabled trucks to move down on the stone road and back on the plank road, loading with ammunition placed on duck boards alongside the latter. As a matter of fact, the work proceeded no farther than the actual grading and laying-out of the dump, when orders were received to resume work on the road. This came at about the time of the beginning of the drive of the First Army. From that date (September 25) until the 10th of October, the company remained on road maintenance. On the 11th it began work on the second position as described elsewhere.

Up to the time of the final movement of the companies to the front two days before the Armistice was signed, "B" Company's

OFFICERS' QUARTERS, "B" COMPANY, SAINT-BAUSSANT

camp remained near Saint-Baussant. The men had salvaged lumber and sheets of corrugated iron during their spare time and had constructed comfortable little shelters which were heated by salvaged stoves. The officers' quarters were in a shack located in a somewhat prominent position, but concealed with camouflage, as also were the other conspicuous buildings of the post. Gas alarms were set up at different points about the camp and proved their value on more than one occasion when enemy gas-shells burst within effective range. "B" Company came in for its share of high-explosives, but it weathered its campaign in the field of fire with its lucky star in the ascendant.

On the 20th of September, "C" Company received orders to break camp at the Flirey cross-roads and move to Limey, three kilometers east on the Metz highway, there to begin the construction of an artillery ammunition dump. The general plan for the work was much the same as that used by "A" Company with one exception. The dump constructed by "A" Company was the shape of a U — a plank road outlying the dump. In this case, however, it was possible for "C" Company to make use of a stretch of road on the Limey–Lionville highway, inasmuch as the dump lay very close to the road, making it possible for trucks to move down the stone highway and return on the plank road. The latter was also constructed in accordance with E.F.M. No. 14, about three meters from the Limey–Lionville road and parallel to it for a distance of four hundred meters. At each end it connected with the stone road to permit free circulation of traffic. This plan eliminated one leg of the U and threw all the traffic to one side of the dump instead of entirely around it. Unfortunately, however, the work was never completed farther than the actual construction of the plank road and grading for the narrow-gauge railway. On the 24th of September, the company received orders to cease all operations and proceed at once to the Bois de la Sonnard, between Flirey and Essey. The Company resumed work immediately upon the Flirey–Essey highway, in accordance with orders, and hauled bridge material to the Pannes and Essey bridges.

This preparation was made as part of a feint drive to be launched by our troops on the immediate front. Heavy artillery

bombardment and deep trench raids were to lead the enemy to believe that an attack was to be made on his positions. As a matter of fact, as stated in an earlier chapter, the attack occurred as planned on the Verdun front to the north — marking the beginning of the second offensive of the First Army. That night the artillery bombardment began at 12 and continued until 5 A.M. of the 25th, but as very little artillery fire was returned by the enemy, the bridges at Essey and Pannes were never in any great danger. But because of the importance of the Essey Bridge in the main line of communication, precautions had to be taken while the enemy was attempting to register on it. Lieutenant Deacon with one platoon was stationed near by, prepared to place new timber should a shell reach its target. As this did not occur, the detail was later reduced to one squad. After planting several shells uncomfortably close to the bridge, the enemy apparently abandoned his efforts in this direction, but one day at noon a German plane arrived and, circling above the structure, suddenly dropped to a point directly over it where the aviator seemed to be examining it or taking a picture. So close had he come that the officer and men were able to see the aviator's face and all the details of the machine. Other than the occasional firing, however, nothing resulted.

The Company devoted itself almost exclusively to road work. There was a great deal of it to be done, as the surface of the road had already begun to show evidences of wear beneath the constant flow of traffic it was subjected to. This road maintenance continued thoughout the remainder of the month.

On the 1st of October, the company began work on its second artillery ammunition dump east of the Flirey–Essey road in the Bois Rendu. This followed out essentially the plan of the dump of "A" Company and was completed the 17th of the month.

A few days later the company broke camp in the Bois de la Sonnard and moved to Bois de l'Évacuation, about a kilometer and a half from the camp-site previously occupied and nearer the work on the wiring of the second position. This last camp was located in a small grove of jack-pine. It presented the appearance of a backwoods village, after the men had finished work on their numerous shacks and shanties, and yet, from a standpoint

THE BRIDGE AT JESSEY

of health and comfort, it proved to be the best camp the company ever had while operating in the field.

The 51st Pioneers, having been attached to the regiment with the 1st Battalion attached to our 1st Battalion, the companies were located at Saint-Baussant, Xivray, and Mont Sec. Their work was at all times creditable. At Mont Sec in particular did they have a hard task in road work. Along the south side of Mont Sec, through Loupmont to Apremont, was a road on which was a continual series of obstacles. Loupmont, through which the road passed, had been organized for defense by the Germans in their usual methodical way. Miles of heavy barbed wire crossed and recrossed the street dozens of times. Iron stakes had been used; in the road metal, holes had been punched and filled with cement mortar, into which the stakes had been screwed. Heavy masonry walls were built across the west entrance and in the town clay from dugouts was piled over the road metal. Bushels of sharp-pronged, three-pointed wire devices were strewn everywhere; these were about three inches in diameter, and, being indistinguishable in the darkness, would prove very uncomfortable to any member of a patrol who stepped or put his hand on one. Two deep tank-traps had been blown out with explosive, and just before the enemy fell back he cut many trees which fell across the road. Our own shells had torn out whole sections. Captain Warner gave this his particular attention and, with Major Harris of the Pioneers, made a through one-way road of it. Before they left they were able to see traffic passing over it for the first time in four years.

On the south slope of Mont Sec, the side facing the former American lines, is a little cemetery which before the eventful days of August, 1914, was the burying place of the inhabitants of the town. The little spot is outlined on the great slope of the conical mound by a stone wall which at one time encompassed it. Our own fire had turned up the soil from bottom to top in the attempt to destroy the enemy works and had broken the cemetery wall in many places, as well as the tombstones, many of the shells bursting inside. This place seemed to have a great fascination for the soldiers of the Pioneers, one of whom, whenever able to spare a moment away from his road-work, could usually be found gaz-

ing intently through an opening. The cause of this curiosity was one of the number of graves in which the Germans had buried their dead. A shell had struck this particular one, uncovering the lower half and exposing a pair of skeleton legs encased in field-gray trousers and the familiar leather boots of the German Army.

THE ROAD TO MONT SEC

A GERMAN TANK-TRAP AT BOIS DE SONNARD

CHAPTER XI

RETURN OF THE SECOND BATTALION AND REDISTRIBUTION

On the morning of October 3, Company "E" was assigned to road repairs on the Regniéville–Thiaucourt road near the former village. Two days later the company moved into camp from Death Valley to the Bois du Four, again making use of German dugouts and shelters for quarters. It was while they were here that Captain Shaw was called to assume the duties of the Topographical Officer and later those of Regimental Adjutant, leaving Lieutenant Kelly in command of the company, which soon after became his company in reality with his promotion to Captain. On the 1st of November, men and officers moved in motor trucks by Buxérelles and occupied billets in that village. While one platoon dismantled portable sectional buildings at Boucq, 4th Corps Headquarters, the remainder of the company erected camouflage at Woinville, the new site chosen for Headquarters. The buildings were brought to the place and erected in time for staff and personnel to occupy before the beginning of the attack on the 10th. On that date, Company "E" moved to Xammes, but inasmuch as the drive proved to be little more than a raid, the company was ordered back to Bois du Four. With the cessation of hostilities on the 11th, "E" Company was again moved to Woinville, quartered in German barracks above the town, and set to work completing the requirements of Corps Headquarters.

Companies "D" and "F" received orders on October 5 to move to Mont Sec — a distance of twenty kilometers — the trip being accomplished by trucks. At this place they occupied quarters in the stronghold, "D" Company being quartered at the foot of the hill in the German dugouts and "F" Company in the wooden shacks near the top of the hill, all of which were comfortably provisioned and heated. The P.C. of the former company was located in a concrete dugout, over the door of which, carved out of solid rock, was a coat of arms and an iron cross. "F"

Company's P.C. was located in a building farther up the hill, formerly used as an officers' club by the Germans, and provided with a very artistic little rustic porch overlooking the surrounding country for miles. The Germans had spared no means at hand to make the place as near like one of our own summer-colony resorts as possible.

Some of their efforts at decoration were to be seen in the friezes, taking the form of caricatures. These unusual groups in silhouette were found painted on the walls of a dugout underneath the ruined buildings of the town of Mont Sec while "D" Company was engaged on road-work near that famous German stronghold. They depict scenes of intimate, daily life in the German Army and were drawn by some unknown German soldier, who thus employed his spare time while stationed there. The original formed a border eighteen inches wide and extended around the room.

The pursuit of the vermin, the rats in the bunks, the company cobbler at work, and the mess line, all were familiar incidents to American and German soldiers alike, and likewise did the American "doughboy" and the German infantryman undergo the same hardships and sufferings, the grief and homesickness, and see the same humor which the soldier artist has so cleverly shown.

Both companies were employed on road-work between Mont Sec and Richecourt, making the same class of road repairs that had been made before on the roads throughout the Corps sector. At 4.15 o'clock the afternoon of the 9th, while men and officers were occupied with the duties on the road, the monotony of work was interrupted by the report of a terrific explosion. It seemed to come from the direction of "F" Company's kitchen. Hastening to the scene the members of the companies were greeted by a sickening and gruesome sight. The kitchen, including provisions, had been blown to atoms; and strewn upon the ground lay the victims of the accident besmeared with flour, grease, and blood, silently bearing their pain and dazed by the awfulness of the moment. Men of both companies and of the medical detachment rushed to their aid. Wounds were carefully bandaged and everything done to alleviate the suffering. A British ambulance responded to a summons and conveyed the injured men to the

GERMAN SILHOUETTES

"B" COMPANY AT SAINT-BAUSSANT—THE GAS ALARM

field hospital in Bernécourt, five men in all — Cooks Lucitt and Pieraccini, and Privates Crane, Haley, and Brundage. Private (first class) Tefft had made the supreme sacrifice and was laid away on Mont Sec with military honors. Brundage was the only man to recover sufficiently to return to duty with his company. Of the others, Pieraccini died of his wounds and the rest returned to the States physically unfit for duty.

The accident has been attributed to the explosion of a Bangalore torpedo, prepared by the Germans and left behind in their retreat. It was detonated by means of a friction fuse, working on the same principle as the hand grenade. Through ignorance, the fuse was set into action and the torpedo exploded. The circumstances were purely accidental and cannot be attributed to carelessness on the part of any one man. It was only one of those many painful accidents from which our men learned the value of leaving dangerous-looking objects alone.

On the 13th of October, Company "F," 51st Pioneers, was attached to the 2d Battalion and operated with "D" and "F" Companies on the roads, later accompanying them, on the 21st of the month, to Puvenelle Woods near Mamey, where the 2d Battalion engaged in second-position wiring. The men were quartered here in old French barracks, holding about sixty men each. To quote a member of "F" Company, 301st: "The barracks were cold and damp and many a fine healthy rat had picked the bunks for his home. After dark they made their displeasure known by running over bunks and floor, squealing in their chagrin to find their lodgings usurped by other occupants." An officer said, "During our stay here the game of war deteriorated from the pastime of chasing Huns to that of chasing French rats."

At 2 o'clock on the morning of November 10, "D" and "F" Companies, 301st, were ordered to proceed to Thiaucourt, there to feature in the attack of the Second Army. But as the attack did not develop, they were instructed to return to Euvézin Woods and await future orders. On the 11th, they again moved up to Thiaucourt and were billeted in an old schoolhouse, from which point they carried on their operations previous to the march into Germany with the Army of Occupation.

CHAPTER XII

THE SECOND POSITION

When the 4th Corps came under the command of Major-General Muir, it has been said one of the first questions he asked his staff was, "Where is our second position?" On being informed that it had been roughly laid out, but that no effort had been made to actually wire it, he gave orders to begin work on the entanglements without delay. The 1st Battalion was assigned this undertaking and began work at once. "A," "B," and "C" Companies entered the field for this work at approximately the same date. The whole front of the second position was divided into sections and a unit assigned to so many sections. These were numbered from east to west, beginning near Gézoncourt, two kilometers north of Rogéville, the first section being 107. The western boundary of the last section began one kilometer east and two kilometers south of Heudicourt and extended in a southwesterly direction to the Étang de la Perche. This was known as 119. Company "A" was assigned sections 119, 118, and 117 as far as Étang-le-Bailly; Company "B," the remainder of 117, and in addition sections 116 and 115; Company "C" began work on sections 114, 113, and 112.

Sections 107 to 111 inclusive were assigned to the 2d Battalion, made up of "D" and "F" Companies of the 301st, and "F" Company of the 51st Pioneer Infantry. Owing to pressing need, however, of road repairs on roads they were working on at that time, they were unable to begin work on the second position until the 24th of October.

The specifications called for French high wire and the use of wooden or iron pickets. A great many of the latter were salvaged and used, although the men much preferred to work with the wooden pickets. They were easier to place and string the wire upon and made their work progress much more rapidly. The wooden pickets, however, were not considered as effective against a tank attack as the iron pickets. This point has been brought

HEAVY TRENCH MORTARS AND AMMUNITION LEFT BEHIND BY GERMANS

out in this chapter in the Headquarters summary of the work quoted below:

HEADQUARTERS, 301ST ENGINEERS,
AMERICAN EXPEDITIONARY FORCES,
3 *November*, 1918

OCTOBER, 1918, OPERATIONS REPORT

[*Extract*]

Second Position Work

The work of building the second position for this corps has been carried on along a front of about eighteen kilometers. The first work done after the position was located was the building of the wire entanglement. For this four bays (five rows of posts) of high French wire was used.

The materials for the most part were salvaged from German dumps and existing wire found in the neighborhood of the proposed position.

Working in daylight, it appears to save time to increase the crew to about forty-three or four men and string the wire without removing it from the spools. In darkness it is essential to have the wire wound into scores.

The standard three- or four-eye screw picket, to be salvaged by the thousand in this salient, is by far the best picket to be had. The "whippet" tanks broke the German wire before these pickets would pull out of the ground.

The trenches of the second position are being "indicated" — that is, their trace laid out and dug about one foot deep and three feet wide. The octagonal trace is being used.

. . . . . .

All wiring as laid out on the Mort Mare map, reproduced here, was to be four bays deep and completed as nearly as possible in accordance with Colonel Kelly's original plan. Before he had left the 4th Corps as Chief Engineer to assume other duties, he had laid out the entire second position of the corps front and the work was carried out in this way in so far as possible.

The general scheme of the second defense was to locate machine-guns to shoot the front bands of wire, confining the field of fire to a lane, about two meters wide, where the wire ran into the woods, and commanding the wire and fields of fire where the entanglements were in the open. The guns of the rear positions were so located as to cross fire on those of the front positions and at the same time prove effective in case the enemy penetrated the outer defenses. Bearing these facts in mind, the companies set to work outlining the front band with flags and cutting trails through the woods to determine the possible presence of dead angles, to make provisions to cover these with automatic rifle fire, or by modifying the plan slightly to eliminate these entirely. Each company car-

ried on its work by dividing the sections and assigning a certain amount of the work to each platoon under the supervision of an officer. The work within the platoon was further subdivided so that each man had a task to perform and one task only. The entanglements were constructed in accordance with the drill as laid down in the Manual for French high wire, and once under way, the construction proceeded with very little lost motion. It was originally planned to complete the four bays of wire of the front position as the work progressed, but inasmuch as there was a great deal of front to cover, this was later changed by outlining the position with one bay only and then going back to add the three remaining bays and complete the section. Adopting this plan something was done eventually the entire length of the front position. In addition to the wiring, the traces of the trenches for the first position were laid out, and in the case of "A" Company dug to a depth of one foot, three feet wide, on seventy-five per cent of their sector. "B" and "C" Companies merely staked out the location of the trenches, being ordered to the front on the 10th of November before any actual work of this nature could be begun. The traces most extensively used were the octagonal and zigzag described in Engineers F.N. No. 42 and No. 18 respectively. The latter was particularly effective where the fortifications ran into the woods and dead angles were encountered, where flanking and direct fire was desired from combat groups. As very little underbush was removed — in fact only that which was absolutely necessary to satisfy the military requirements of the terrain — the latter trace lent itself to the situation because of the minimum of labor involved in laying out and digging. In addition the zigzag trace had been used almost exclusively on our first positon, through Saint-Benoit, Deney, Xammes, and Jaulny by the division engineers.

Meanwhile, under the direction of Major Dean and Captain Hussey, the 2d Battalion, comprising the companies enumerated above, began work on sections 107 to 111. Their camp was located in the Bois de Puvenelle at a point about four kilometers southeast of Mamey. "F" Company of the 51st Pioneers was employed in carrying stakes and wire, and otherwise used to assist "D" and "F" Companies in the erection of the entanglements. Out of justice to the companies of the 2d Battalion, it must be said they worked under two handicaps — the distance of their work from the camp in the Puvenelle Woods and the topography of the country. Going to and from camp consumed four hours a day which left a working day of only four and a half hours, after the noonday period was substracted. Almost half of the time of these companies, therefore, was spent upon the road.

Work was begun in two places — section 111 between the Metz and Remenauville roads and sections 108, 109, and 110, which carried the second position across the Saint-Jacques Canyon. This formed the basin for the Rau d'Esch — a small stream flowing east into the Moselle. It

SECOND POSITION WIRE

AN ALLIED PLANE BROUGHT DOWN

was not in evidence, however, at the point of the second position. The canyon varied in width from fifty to one hundred meters and was flanked on either side by high, heavily wooded hills. The entanglements had to be constructed across the canyon and up over these natural obstacles. Owing to the steepness of the latter, it was rather difficult to command fields of fire at all times. Major Dean laid the position out, however, so as to make use of flanking fire in as far as it was possible, and command any troop movements in the canyon from the heights.

This position, as in the case of that part of it assigned to the 1st Battalion, was flagged out and the work carried on in the same manner. With all the difficulties encountered, "D" Company was able to complete 4990 square meters and "F" Company, 4000 square meters for the week of November 1 to November 8. "B" Company of the 1st Battalion for the same week completed 11,080 square meters, and "C" Company, 9460 square meters; but it is to be remembered the latter two companies worked under ideal conditions and were much better drilled in their work, owing to the greater length of time they had had an opportunity to increase their efficiency. Up to and including November 8, 93,542 square meters of wire entanglements had been constructed, of which the 1st Battalion was responsible for 80,212 square meters. In addition, 550 meters of trenches had been constructed by "A" Company. Records were kept of the amount of work completed by each company by means of the weekly report and the "navette." A typical report is copied below to note the modifications made in the reports for the month of September.

. . . .

Weekly Report, Company C, 301st Engineers

For week ending 8 November, 1918

Job	*Number men employed*		*Location*	*Nature of work*	*Amount of work completed or percentage completed*
	Eng.	*Inf.*			
No. 1	87		Section 113	Wire entanglement	−65 % of first line
No. 2	78		Section 112	Wire entanglement	−15 % of first line

The "navette" gave the amount of work completed each week and to date as in Appendix. A Mort Mare map was prepared showing the sections of the second position — the whole being mounted on a linen backing. Over the face of the map, tracing-

cloth was attached to record the progress of the work. All four-bay wire was shown in red ink on the tracing-cloth using the symbol for barbed-wire entanglements. Uncompleted wire was indicated in pencil only. At the end of each week these were turned in to Headquarters for recording and were returned to the companies in time for the next week's report. Before this was entered on the tracing-cloth, however, the completed wire entanglements for the week before were indicated in red ink on the map. Then, when the work for the week following was recorded, it was possible to see at a glance the progress being made. These reports and the "navette" gave Regimental Headquarters all the information necessary for completing their records for Corps Headquarters, and incidentally furnished the Company Commander with interesting reading.

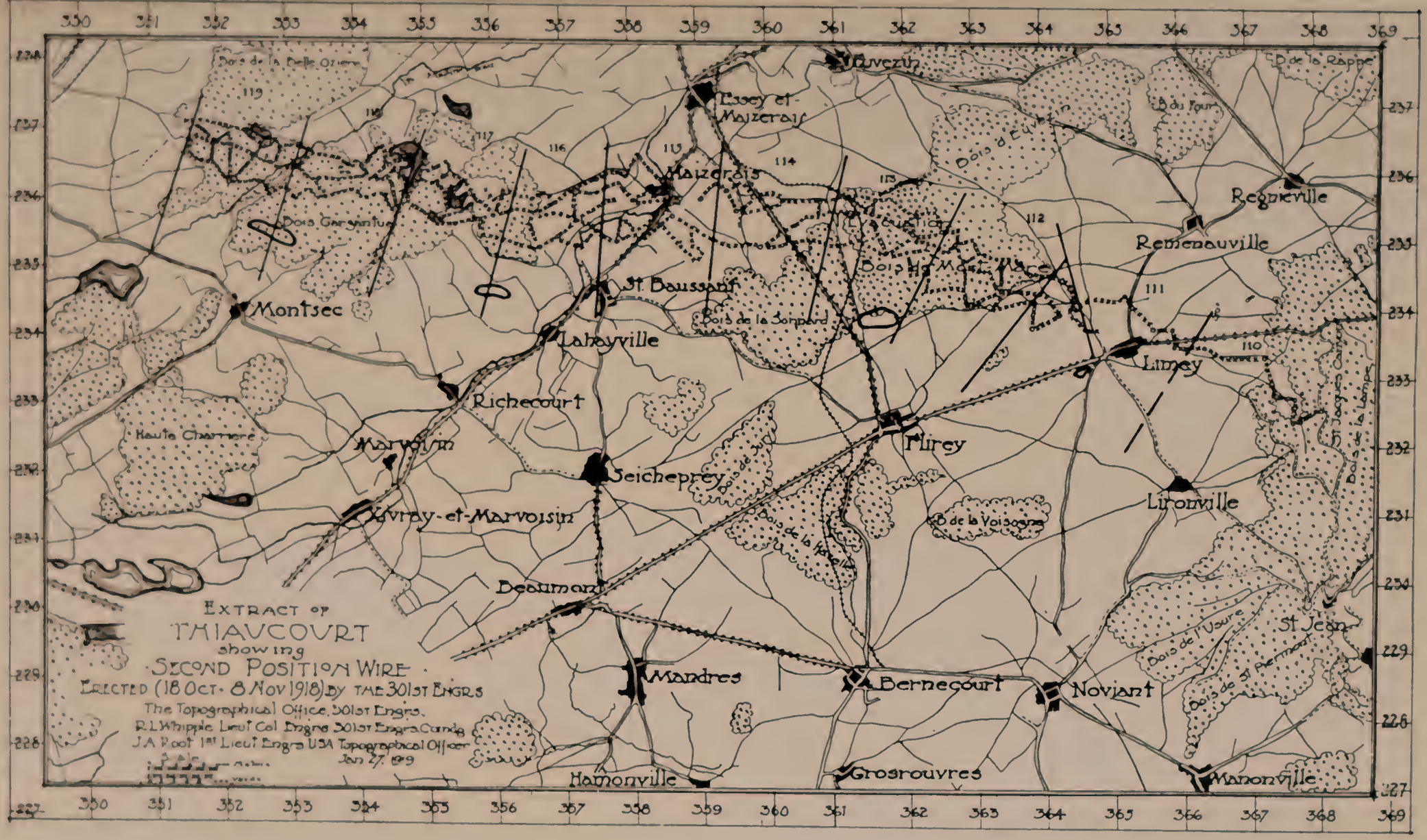
During the time the regiment was on second-position work an interesting experiment was carried out in the form of night wiring. A platoon, under an officer, and formed in accordance with the French high wire drill regulations, 2 N.C.O.'s and 34 men, worked from 18 o'clock to 22 o'clock. Outpost and front-line conditions were simulated as much as possible and the work carried on in silence and without confusion. Each man had his task to perform, and as soon as it was completed required to withdraw. One hundred meters seems to have been the average distance at which noise was first detected — this being attributed to the scraping of the wire on the iron pickets. The following reports submitted by "D" Company, and Instruction Memo No. 1, are quoted to give the reader a better idea of the efficiency of the plan and the results obtained:

. . . . . .

Co. "D," 301st Engineers, A.E.F.
November 4, 1918

From: C.O. Co. "D," 301st Engineers
To: C.O. 310st Engineers
Subject: Night Wiring

1. Complying with Instructions Memorandum No. 1, Hq. 301st Engineers, A.E.F., 23 October, 1918, and Memo to Companies D and F, Hq. 301st Engineers, A.E.F., 26 October 1918, the following report is submitted covering the four points:


EXTRACT OF
THIAUCOURT
showing
SECOND POSITION WIRE
ERECTED (18 OCT - 8 NOV 1918) BY THE 301ST ENGRS
The Topographical Office, 301st Engrs.
R.L. Whipple, Lieut Col Engrs 301st Engrs Comdg
J.A. Root 1st Lieut Engrs USA Topographical Officer
Jan 27, 1919
Bois de la Belle Oziere
Bois Gargantua
Essey et Maizerais
Maizerais
Nuvezin
Bois d'Euvezin
Bois du Four
Bois de la Rappe
Regnéville
Remenauville
Bois de la Montagne
St Baussant
Bois de la Sonpard
Montsec
Lahayville
Richecourt
Haute Charmere
Marvoisin
Seicheprey
Bois de Jury
Limey
Flirey
Bois de la Lampe
Bois de St Jacques
Lironville
Bois de la Voisogne
Bois de la Haye
Avrey-et-Marvoisin
Beaumont
Bois de l'Usure
Bois de St Permont
St Jean
Mandres
Bernecourt
Novjant
Hamonville
Grosrouvres
Manonville

(a) Was the work accomplished with a satisfactory degree of silence?
(b) Was the quality of work satisfactory when viewed the following morning?
(c) How much wire, 2 bays deep, was entirely completed? How much was partially completed? Measure this in units of lineal meters and also in units of square meters.
(d) Give a general criticism of the work and whether you think it advisable to continue the practice of erecting wire at night.

	(*a*)	(*b*)	(*c*)
1st Platoon	Yes, except that no screw pickets were available and it was necessary to use mauls.	Good	(1) None (2) 200 meters one bay deep 400 sq. meters
2d Platoon	Yes, except that no screw pickets were available and it was necessary to use mauls.	Very good	(1) 120 meters 480 sq. meters (2) 50 meters 100 sq. meters
3d Platoon	Yes, except that no screw pickets were available and it was necessary to use mauls.	Very good	(1) 110 meters 440 sq. meters (2) None
4th Platoon	Yes, except that no screw pickets were available and it was necessary to use mauls.	Fair	(1) 200 meters 800 sq. meters (2) None

The work of all platoons is considered very good for troops not specialized in this line of work. It is not thought necessary to continue the practice.

In interpreting the above table the following points should be noted:

1st Platoon worked under bad weather conditions and used wooden pickets in hard soil.

2d Platoon worked under excellent weather conditions and used angle iron (not screw) pickets.

3d Platoon worked under excellent weather conditions and used angle iron (not screw) pickets.

4th Platoon worked under good weather conditions, but used wooden pickets in hard soil.

HEADQUARTERS, 301ST ENGINEERS
AMERICAN EXPEDITIONARY FORCES
23 October, 1918

Instruction Memorandum No. 1

1. Companies A B and C of this regiment and any other later company which becomes engaged on position work will erect wire, simulating front line work, in accordance with the following schedule and conditions.

2. The work will be done by a standard wiring party of 2 N.C.O.'s and 34 men, selected from each platoon. (No additional men will be used for carrying party as the materials will be practically on the site). The work will commence at 18 hours and continue until 22 hours, regardless of weather conditions as follows:

First Platoon	Monday	28 October
Second Platoon	Tuesday	29 October
Third Platoon	Wednesday	30 October
Fourth Platoon	Thursday	31 October

3. French high wire will be erected in some place free from undergrowth 2 bays deep — i.e., 3 lines of posts. This wire will be so placed that it will be an integral part of the system which you are installing. Screw pickets will be used, placed about 6 feet centers and 6 feet between rows. American wire will be used. All materials may be accumulated in advance and placed in not more than 3 separate dumps. The Commanding Officer will be present during the erection of the wire and will make a report covering the following headings and the work of each platoon.

(a) Was the work accomplished with a satisfactory degree of silence?

(b) Was the quality of work satisfactory when viewed the following morning?

(c) How much wire, 2 bays deep, was entirely completed? How much was partially completed? Measure this in units of lineal meters and also in units of square meters.

(d) Give a general criticism of the work and whether you think it advisable to continue the practice of erecting wire at night.

4. It is suggested that the organization commander permit each platoon leader to handle his own platoon without assistance from any other officers and that the other platoon leaders and some sergeants accompany the commanding officer for a sufficient length of time so that they may realize how much noise a working party produces. This party should always be in front of and should not approach too close to the working parties nor in any way disturb them.

By order of Lt. Colonel WHIPPLE
M. H. PEASE
Captain, Engineers, Adjutant

VIEW OF SAINT-BAUSSANT

VIEW OF THIAUCOURT

While the second-position work was in progress, orders to the regiment from the corps instructed that from time to time alarms would be given, at which the second position would be manned by such troops as were in its vicinity. The position to be manned extended from the extreme left flank where "A" was working, through the portions already partly finished, down across the Metz highway, south over a new location upon which no work had been done.

For the first trial, the sector was divided between the Commanding Officers of our regiment and the 51st Pioneers to which many other auxiliary units were added. Companies were represented by one officer, two sergeants, and runners, who remained at their posts until their locations were verified by a corps inspector, after which all were dismissed. This was an additional precaution taken against some unforeseen move of the enemy.

For a few days preceding an attack on the 4th Corps front which was anticipated, the main axial roads were carefully reconnoitered and such repairs as were necessary were made. Second-position work was abandoned. "E" still remained at Woinville and the 2d Battalion at Puvenelle Woods. At this time this battalion was in command of Major Pease, recently promoted, Major Porter being at the Staff College at Langres.

Company "C" was at work on a bad stretch of the Flirey–Essey–Pannes Road, the worst section of which was in a hollow just south of the old Flirey Station on the narrow-gauge. Here, also, large quantities of ammunition were piled. At about five o'clock in the evening of the second day there, the enemy artillery began to register with shrapnel. Captain Betterley continued with his work until instructed to take his company from the vicinity.

CHAPTER XIII

THE ATTACK ON THE FOURTH CORPS FRONT AND RESULT

It was known to Regimental Headquarters that the regiment would participate in an attack on the 4th Corps front at some unknown time within the next few days. A map was prepared for the movement, warning orders issued, and various other preparations made. Tentative locations were allotted the different units for Posts of Command, one battalion having the left section and the other the right. This order was issued on the assumption that the attack would progress northward, the locations being those which the units would have had; the actual locations are shown in the reproduced map. This attack came to be locally known as the Saint-Julien Drive, Saint-Julien being a town in the enemy lines.

At 1.15 A.M., the 10th, telephonic orders were received at Bernécourt to the effect that at 7 A.M. that morning the attack would begin. This order was at once communicated to the widely separated companies by 'phone, by motor-cycle and machine, and by sunrise advance detachments of the companies were on the road. An extract from the Historical File, dated December 1, is quoted:

[*Extract*]

REPORT OF OPERATIONS FOR MONTH OF NOVEMBER, 1918

1. From 1 November to 9 November, Headquarters of the regiment was at Bernécourt. At 1.15 hours, 10 November, telephonic orders were received stating that 10 November, 7 hours, were the day and hour for the attack covered by Field Order No. 57, Headquarters, Fourth Army Corps. Couriers were immediately despatched to the companies of this command with orders for them to proceed according to the prearranged plan, and an advance P.C. (Regimental) was opened at 6.30 hours at Saint-Benoit. The movements of individual companies are covered in succeeding paragraphs. As the Infantry advance did not progress sufficiently to uncover the area on which it was intended this regiment should work, the P.C. was withdrawn to Vigneulles at 14 hours, remain-

MAP SHOWING LOCATION OF P.C.'S IN PROPOSED DRIVE ON FOURTH CORPS FRONT

ing there until 11 November, 12 hours, when it was reopened at Bernécourt, hostilities having ceased at 11 hours according to the terms of the Armistice.

6. Company "A" was engaged in repairs on roads near Viéville-sous-les-Côtes, second-position wiring, and trench (trace) excavation from 1 November to 9 November, moving camp from Bois de Pannes to Bois de Buxieraubois on 4 November. On 10 November, the company marched to Vigneulles, the rendezvous of the 1st Battalion in connection with the attack of that date, later moving to Viéville-sous-les Côtes, where billets were occupied until 16 November. During this period, equipment was renewed and disciplinary drills executed. On the night of 16 November, "A" Company moved out onto the road Hannonville–Saulk–Riaville–Paroid, commencing road repairs about 1 hours, 17 November, under orders from C.O.108th Engineers, across the German positions. The Company was relieved at about 15 hours and billeted at Paroid for the night, marching on the following day.

7. "B" Company and "C" Company were occupied with second-position wiring from 1 November to 9 November, being encamped at Saint-Baussant and Bois Rendu respectively. These companies marched to Vigneulles in the early hours of 10 November, that being the assembly point of the 1st Battalion specified in anticipation of the advance of that date. Billets in this town were occupied by "B" Company and in Viéville-sous-les-Côtes by "C" Company, the men being equipped and drilled until 16 November, in the evening of which date the companies marched to Saint-Maurice, reporting to the C.O. 103d Engineers in the early hours of 17 November for duty on the Saint-Maurice–Woël road. Their services not being required, the march was continued to Thillot, where billets were taken for the night, the march being resumed on 18 November.

8. Companies "D" and "F" worked on second-position wiring, being encamped in the Bois de Puvenelle, from 1 November to 9 November. On 10 November they marched to Thiaucourt taking position there preparatory to following the Infantry advance, scheduled for that date. Here they were billeted until 16 November, being engaged in renewing equipment and disciplinary drill.

9. A stone arch highway bridge about two kilometers north of Xammes on the Charey road having received a direct hit by artillery, one platoon of "D" Company was sent on 15 November to repair the damage so that the transportation of the 3d Division might pass over it. Reconnaissance showed that the arch had a span of about twenty-six feet, a width of roadway of about sixteen feet, and a rise above the dry bed of a creek of about sixteen feet. The shell had torn a ragged hole in the east side of the arch, leaving only about seven feet of roadway, and shaking up the remaining portion of the arch so that it showed large cracks, except in the west cut-stone arch ring which was intact.

10. Three bents of timbers about 10″ x 10″ were erected in the gap, resting on large stones from the débris which was roughly leveled off; 10″ x 10″ stringers rested on these with ends extending well back over the abutments, ditches being in the road metal to receive them. Over these, road plank were laid, being fitted to the ragged edges of the remaining arch masonry, at such a level that when about 8″ road material was spread over the plank, the original grade was substantially restored. The bents were very irregular in shape by reason of the irregularities of the gap in the original structure, and were heavily cross-braced with 4″ road plank. The shaken portion of the remaining arch was braced with heavy plank caps and timber struts at the crown and quarter points, these struts being brought together against a sill on the débris directly beneath the crown. Part of the easterly spandrel wall showing a decided bulge outward, and large cracks; it was braced perpendicularly to the axis of the roadway by diagonal struts bedded against a footing of plank in the ground.

11. The bridge was ready for traffic the evening of 15 November and was entirely finished, with railing, in the forenoon of 16 November in ample time for the forward movement over this road which began the morning of 17 November.

12. Late 16 November these companies marched to Xammes, reporting to the C.O. 6th Engineers, for orders relative to the repair of the Xammes–Charey road preparatory to the advance of the 3d Division in the movement of Occupation. No work being required of them, these companies marched to Hannonville au Passage.

13. Company "E," having moved from Bois de Four to Buxérelles on 1 and 2 November, was engaged in the removal of sectional buildings vacated by Fourth Corps Headquarters at Boucq, and the re-erection of these buildings at Woinville, the new Headquarters of the Corps. This work continued until 9 November, the company marching to Thiaucourt on 10 November to join the 2d Battalion according to the programme for the attack of that date. On 11 November, hostilities having ceased, the company marched to Woinville, finding billets in German Camps on the hills west of that town and continuing work on Corps buildings until relieved on 15 November. The 15th and 16th were spent in preparing to take the road with the Army of Occupation. In the last hours of 16 November, the company marched to Hannonville-sous-les-Côtes reporting to C.O. 108th Engineers for duty repairing roads across the German positions. The forenoon of 17 November was spent on repair of Hannonville–Wadonville–Saint-Hilaire–Harville road, especially through the towns of Wadonville and Saint-Hilaire.

14. The Headquarters Detachment and 301st Engineer Train have been employed in the administration and supply of the regiment.

15. The first and second battalions of the 51st Pioneer Infantry, under the direction of this headquarters, prior to 10 November, worked on

DETAIL VIEW OF REPAIRS TO BRIDGE AT NAMMES

roads and assisted the wiring parties of this regiment, their distribution being the same as indicated in paragraph 7 of the October report. On 10 November they moved up with the corresponding battalions of the 301st Engineers ready for work in case the Infantry attack of that date succeeded. The Armistice intervening, these battalions were returned to the control of their regimental headquarters and proceeded on 17 November with that regiment on the march of occupation.

. . . . . .

The drive toward Saint-Julien in the morning of November 10 was preceded by a very moderate artillery preparation during which the regiment moved up.

The companies of the 1st Battalion with the Pioneer Infantry took position along the Vigneulles–Hattonville line. They arrived exactly on time and were ready to carry out the instructions to follow the infantry advance. Patrols sent out to reconnoiter in Woël and beyond found that no change had occurred in our lines and little work required to be performed. Liaison with the Regimental P.C. at Saint-Benoit was constant despite the fact that telephone lines had been cut by enemy fire during the night; messages were sent by motor-cycle.

The 2d Battalion, in command of Major Pease, reached Thiaucourt and vicinity and were ready at the appointed time. The town had been severely shelled and a large quantity of gas had been used which still hung about the buildings. The disposition of the units of the regiment is shown in the following reproduction.

On the 10th and 11th of November one platoon was detached from "C" Company, to repair the bridge at Xammes, later completed by "D" Company. The operations of the working party, "C" Company, Captain Betterley, are summarized in the following letter:

HEADQUARTERS, 1ST BATTALION, 301ST ENGINEERS
VIGNEULLES-LES-HATTONCHÂTEL
14 *November*, 1918

From: Commanding Officer, 1st Battalion, 301st Engineers
To: Commanding Officer, 301st Engineers
Subject: Action of Working Party on Xammes–Charey Bridge

Through the Commanding Officer, Company "C," this regiment, I have requested a brief outline of the work executed by a working party,

commanded by 1st Lieutenant Edward F. Deacon, on the days of November tenth and eleventh, in the repair of the bridge near Xammes and which outline is embodied in the following summary.

Although final accomplishment of the task, by the working party, was impossible, due to the cessation of hostilities, the success of the undertaking would have been unquestionably assured had they been instructed to proceed.

It is my desire that some form of recognition, such as a regimental bulletin, be given their action, which, though wholly in the line of duty of an engineer unit and within the scope of endeavor in which it should appropriately function, nevertheless, it is my opinion that a service so efficiently and steadfastly performed should not be allowed to pass unnoticed and forgotten.

The fact that there were no casualties can be attributed to the able manner in which the officer commanding the working party made disposition of his men.

The carpenter detail left camp at Bois de l'Évacuation by truck at 5.30 A.M., tenth of November, reporting at Bouillonville and Thiaucourt for bridge material, which they delivered at Xammes. Here the timbers were framed and loaded on escort wagons by 9.30 A.M.

The Second Platoon, Lieutenant Bowler, left camp 6.30 A.M., and arrived at 10 A.M. All men and animals were at once placed under cover in the village, pending orders to move forward to the bridge.

The Infantry began an attack at 15.30 o'clock, accompanied by artillery preparation which lasted two hours or more, the flanks moving forward and the immediate front holding. A patrol from the Second Platoon was sent out to observe the operations in order to have first-hand information regarding the location of the Infantry on that portion of the front with which the work was concerned.

By 18 o'clock the Infantry had moved forward, so an attempt was made to begin bridge work. A detail was sent forward with picks and shovels but found the ravine filled with mustard gas which existed in many pockets directly alongside and around the bridge, in the dampness of the foliage. It was decided that better progress could be made by waiting and working without masks and that work would proceed at 19 o'clock, when a second patrol reported that, though gas existed, the concentration was light.

At that time both our own and the enemy artillery fire was temporarily suspended and a period of quiet existed, making it necessary to carry the material out, rather than to use the wagons and draw enemy machine-gun fire. By midnight of the tenth the débris (resulting from a direct hit by shell-fire) beneath the bridge had been leveled, sills and all posts were ready to be placed.

The I-beams were loaded on the escort wagons in Xammes and between 4 and 5 A.M., under cover of the fog and darkness they moved out.

THE BRIDGE AT NAMMES AFTER BEING REPAIRED

Details immediately began cutting through the road metal preparatory to the placing of the I-beams. Though silence prevailed, the work continued steadily until 8.30 A.M., when the noise of our and the enemy artillery made more rapid progress possible. The protecting fog lifted about 9 o'clock when it became necessary to call in the detail on top of the arch, where, being under direct enemy observation, it would draw fire and interfere with the work. Work under the bridge went on.

From this point on, the intensity of the enemy fire increased. As it came into close range of the bridge, the men withdrew, with the exception of a non-commissioned officer and one squad, and deployed in the brush concealed from artillery and aerial observation. Scarcely had this been accomplished when bursts occurred in the area just vacated. The remaining squad was withdrawn to prevent losses from shell splinters which were striking the bridge structure freely; three shells bursting about thirty feet from the arch ring when the squad was underneath, and three on the opposite side, within one hundred feet.

While the squad was reaching a place of safety, a patrol went forward to learn whether our troops were attacking or the enemy counter-attacking, it being borne in mind that the party was working in a deep hollow surrounded on all sides by high land, and at the bottom of an approach enfiladed by enemy machine-gun fire and reaching out toward their lines. The patrol reported that our infantry was holding the front opposite us, having resumed the attack of the previous day.

As the enemy fire again increased the party was forced to seek safety, so withdrew to Xammes, leaving the one squad and non-commissioned officer to continue. At 11 A.M., all firing ceased and a sergeant was sent out to learn the cause, with instructions that if our Infantry advanced, to place I-beams at once. Meanwhile work on the top of the bridge had been resumed under concealment of the fog. At 11.30 A.M., Lieutenant Bowler brought in information that hostilities had ceased. Work was discontinued at 14 o'clock, when orders were received returning the platoon to Viéville.

From the time the men left camp, on the tenth, to the time they rejoined their command, they are to be commended for the spirit in which they carried on their work and above all the excellent discipline maintained. The conduct of Sergeants Cambio and Hogan is worthy of mention and particularly so in the cases of Sergeants Ernest Strack and Murdock McRae who accompanied all patrols, worked and handled their men under fire and whose soldierly qualities and good judgment were constantly evidenced.

NORMAN D. DEAN
Major, Comdg. 1st Battalion

The Saint-Julien drive had been a feint attack intended to divert the enemy's attention from the zone of the attack where a

decision was sought. This would have occurred on the right or east bank of the Moselle, which had been an area of almost complete inactivity throughout the war. There had from time to time been artillery duels and shelling of towns, but little more than this. The signing of the Armistice, effective November 11, stopped all operations on these fronts and preparations for the march northward were commenced.

Had the drive gone forward on our front as planned, the troops would have passed through the east edge of the Woëvre Plain, a barren, half-swampy tract where the enemy had made desperate endeavors to develop a position of resistance. Beyond this, at or near Mars-la-Tour, would have been placed the objective. The enemy's forces at this time were very much reduced, no division in the lines had been refilled nor had had adequate rest behind the lines. There were but few first-class divisions, the *Landwehr* holding a large portion of the front. Through this a strong attacking force would have penetrated without great difficulty.

For about seven days it had been known to the men of the regiment that there were possibilities of an armistice. Few believed it; none could be convinced of it while the whistle of the shells retained their familiar sound. Truly during these hours there was little which foretold the end of the world's greatest war. Over Vigneulles, Saint-Benoit, and Thiaucourt, the three points occupied by the regiment, there appeared the usual number of reconnaissance and combat planes, the steady hum of the De Haviland 4 alternating with the intermittent buzzing which indicated the German Folker or Rümpler plane. A large German observation *ballon*, north of Haumont, still performed its daily duties of observing our movements.

The 75's and the 77's were unchanged in their regularity of fire. As had been the procedure for weeks, the usual daily fire on the battered town of Woël went on; this town was on the edge of No Man's Land; some nights it was occupied by enemy patrols and on others by ours.

No change had occurred on the high point north of Hattonchâtel. Here was located a Flash and Sound Ranging Station, upon which it was the duty of an Austrian gun, firing a shell known as the "whizz bang," to register for two hours each day.

A FRENCH CEMETERY IN NO MAN'S LAND

The echoes from these explosions resounded among the walls of the houses of Saint-Maurice and Billy-sous-les-Côtes, and flying shell fragments made the road on the exposed nose into Thillot a very dangerous one.

On the American side the same traffic continued to and away from the front; troop movement went on as before; ambulances darted along the shelled Beney–Saint-Benoit road; ammunition trains toiled slowly over the rough roads with their daily supply.

Just after eleven o'clock on the morning of the 11th, it began to be felt that a strange, new, unusual condition existed; then suddenly came the realization that the cause of it was the silence, the unbroken silence which was the result of no firing. Then only did it come home to the men what it really meant; that hostilities had come to an end. Among the soldiers of the regiment there was no demonstration, no shouting, no noise; the end had come and they were glad it had, but the event was too great a one to indulge in 4th-of-July cheering. So it was with practically all the units on the front; they accepted the great fact quietly, just as they had been in the habit of accepting things since their advent in the A.E.F. In the areas behind the Zone of Advance great activities resulted among troops of all nations. In French towns the excitement attained great heights and the sky for miles glowed with the reflection of many bonfires.

Before orders issued forbidding it, some of the men crossed to the German lines to gaze curiously at the enemy, who seemed greatly pleased to see them. Articles of all kinds were offered our men for sale or trade. Many profited by this rare opportunity to satisfy their unquenchable, typically American desire to obtain souvenirs.

One of the first results of the Armistice was the great number of prisoners of war coming from the enemy south into the American lines. Through Vigneulles and Thiaucourt they came, usually in charge of American soldiers; often a lonely private tramped nonchalantly along, not at all concerned that he was responsible for twenty or thirty prisoners. Some small groups straggled down alone and were picked up.

Most of the prisoners were Russians, poorly clothed and shod, it is true, but not by any means the emaciated, sick, ill-treated

men, which had been expected. Many were red-cheeked, and though wearied from their long walk, wore placid smiles on their good-natured, half-stupid faces. Many of these men had been captured on the Russian front in the early days of the war and had been transferred to different parts of Germany; some had been engaged on farm work, some had been assigned to individual families, and others were used in the back areas in the service of supplies.

The 1st Battalion remained at Vigneulles and the surrounding towns getting the companies into shape and drawing wagons and equipment; animals were issued, equipment was replenished to some extent, and as much clothing as possible was drawn. The 51st Pioneers also drew clothing, but was unable to obtain motor- or animal-drawn transportation in sufficient quantity to supply their needs.

Meanwhile Regimental Headquarters had returned to Bernécourt. The 2d Battalion remained at Thiaucourt making repairs on the Xammes Bridge and other work. "E" Company returned to Woinville to continue its work on the Corps buildings until November 15, when it also refitted. By the night of the 16th all the companies were ready to begin the march northward.

REGIMENTAL HEADQUARTERS AT BERNÉCOURT

CHAPTER XIV

THE THREE HUNDRED AND FIRST ENGINEER TRAIN

Though the 301st Engineer Train had always been a part of the regiment, its special function and training had set it apart in many ways from the letter companies. As divisional engineers, the Train was necessarily under the direction of the regimental commander, but when later the regiment became a corps unit, no such provision in the table of organization existed. Nevertheless, no change was made; the Train retained the same status it had and operated as a part of the regiment. The following outline in narrative form touches upon its history as a unit to the present time

The first days of the Train were identical with those of the regiment. With the arrival on August 26 of Captain Tompkins and Lieutenants Leighton and Reynolds, the Train acquired its first personnel. Captain Tompkins, however, remained but a short time, for the War Department Orders discontinued the grade of captaincy in this unit and the duties were taken over by the two lieutenants.

September 5, three recruits were assigned to the company from the first men of the draft sent to Camp Devens. As more were called for service, the Train received its share, and week by week grew in numbers so that by October 3 its morning report showed a strength of 159, with 41 more attached for rations, and 3 officers, Lieutenant Vernon T. Dow having been attached meanwhile to help with the training. Lieutenant Robert B. Graham was attached soon after, and in a short time, under the instruction of these officers in setting-up exercises, infantry drill, and guard duty, the company began to assume a military air. Meanwhile a mess had been established, and soon the organization was running smoothly, and drills were taking on snap and precision.

October 30, 58 of the recruits were transferred to the Dépôt Brigade and men of the Train will remember among them some peculiar characters. Others had been discharged meanwhile for

various reasons, so that at this time the strength of the Train was 93 men and the 405th Dépôt Detachment of 46 men who occupied the same barracks and were messing with the Train. Since then till the departure for France this number was fairly constant. Infantry drill in close and extended order, the field service regulations, guard duty, wigwag and semaphore signaling, long hikes in the surrounding country, and in our idle moments helping to turn Camp Devens from a brush-heap into a model camp city were some of the phases of the training.

November 26, Lieutenants Graham and Dow left for overseas service. During the severe winter the drilling went on with few interruptions, three feet of snow being considered ideal for a sixteen-mile hike, during which individual cooking of bacon and hardtack added a touch of campaign conditions.

December 2, fifty mules were issued to the outfit. Among them were some star performers, and before they had been saddled and ridden and driven on escort wagons it was found out who the real wagoners and bronco-busters were; many "would-be" riders were seen taking flying trips through the air. Handling this wild outfit in the ensuing months gave valuable training for the real work that the Train was later to be called upon to execute, and developed, from men of little previous experience, able wagoners who could handle a four-line team with ease, and knew how to care for animals.

1st Sergeant Bennett and Mess Sergeant Driscoll and Corporals Di Luglio and Brown were appointed by Regimental Orders November 1, the Train's first non-commissioned officers. Corporal Brown was later made Supply Sergeant and finally completed successfully the Officers' Training Course at Camp Devens.

Cooks Dienne and Gardner were appointed, and under Sergeant Driscoll's direction, with the assistance of Wagoners Ferraris and Cantin and the occasional help of a kitchen or two, gained the reputation for running the best mess in the regiment. Corporals Anderson, Anthony, and Merrill were appointed December 12, and they later successfuly passed through the Officers' School and were commissioned, as was also Private Williston.

1st Lieutenant Wallace M. Hendrick was attached to the company for a short time, as was also Lieutenant Roy S. Farr and Lieutenant Donald A. Smith, the latter two leaving after a short time for overseas service.

In spite of the quarantine for measles from December 15 to 29, the Train had a fairly merry Christmas of its own "in barracks," due to the efforts of Maus Wheelwright and others who enlisted the aid of the Train talent and some generous Rhode Island friends who furnished eatables and presents.

In the following months the organization was perfected in many ways. Sergeant Wall whipped his hundred mules into shape with the aid of the newly made wagoners, plenty of target practice on the rifle range developed some crack shots, equipment was collected, and our overseas orders were awaited impatiently.

In May, with the regiment, the Train went for a five-day march up through the mountains of Massachusetts with full transportation and had its first taste of pup tent life. One night was spent at Townsend, two at Ashburnham, and one at Lunenburg. Just before this Lieutenant Ray O. Delano was assigned to the Train and was replaced later by Lieutenant Joseph W. Begley.

Finally overseas orders were received, and after many inspections and weeks of feverish haste in boxing up equipment that was never again to be seen, the Train said good-bye to the regiment and entrained for Montreal July 10, arriving at 11 A.M., the next morning and embarking on His Majesty's Transport Durham Castle. The arrival at Halifax followed an interesting sail down the St. Lawrence, and there in the next four days the convoy, which comprised twenty-four ships, was assembled.

Destroyers for a short way out of Halifax accompanied the convoy, but while it zigzagged its way across the ocean one long cruiser was all that guarded it the greater part of the trip. More destroyers, British and American, were picked up on nearing the British Isles.

There were three encounters with submarines during the voyage, and the sight will long be remembered, of destroyers racing back and forth a half-mile on the flank, dropping depth-bombs that threw water in geysers fifty feet in the air and

shook the plates of the ship. However, the trip was made without mishap and the Train debarked with the first American troops to be landed in the port of Cardiff, Wales.

A parade and review of the troops by General Evans, the commanding officer of the ship on which the voyage was made, and the city officials in the City Square, were followed by a lunch given in honor of the United States troops by the City of Cardiff.

Thence the outfit entrained for Winchester, England, where it was quartered for two days in Winnal Down "Rest Camp," leaving there for Le Havre, France, *via* Southampton, from which the English Channel was crossed by fast steamer. A day and two nights on the French railways brought the Train next to its training area, Drevant, Cher, in the center of France.

Here followed more drilling and hiking for a month, from the first of August to the first of September, when another railroad trip of two days landed the outfit in Toul at the time of the Saint-Mihiel Drive, when the Train was made the 4th Corps Engineer Train. Here our animal transportation was received and with it the Train wagoned to Flirey, where the regiment was rejoined and headquarters established.

Flirey proved to be full of shrapnel and high-explosive at intervals, and after two weeks the Train was ordered to move its Headquarters back with the regiment to Bernécourt. Meanwhile the wagoners and animal transportation were farmed out to the various companies of the regiment. Eight three-ton Liberty trucks had been received from Le Havre, after a hard race across France with them by the detail of chauffeurs in charge of Lieutenant Begley, and these trucks were put to work hauling stone to build demolished roads, assisting the companies of the regiment in their various and frequent shifts of abode and in carrying the regiment's rations, forage, and supplies. The Train also furnished the transportation for the regiment's work of building dumps and hauled the materials for second-position wiring.

There were no casualties among the Train during this period. There was, however, considerable work done where shells were flying, attested by the fact that at different times five mules were wounded with shrapnel and one was blown to pieces by a shell, only good luck saving the drivers.

WHIPPET TANK NEAR THIAUCOURT DESTROYED BY GERMAN SHELL-FIRE

In this area the billets of the men of the Train varied from the luxuries of a pup tent on the ground through all gradations up to completely furnished German dugouts. Cooties were numerous; hardtack and corned "willy" were frequently the bill of fare; sometimes it was possible to have a fire for warmth and more often not. There was, however, remarkably little sickness.

After the Armistice was signed, November 11, the company was assembled at Bernécourt, refitted as completely as possible in the short time available, and on November 17, with full equipment, left Bernécourt to begin the march to the Rhine with the Army of Occupation. This march proved to be a difficult one for the Train. The mules received were small lead mules; the harness was new and not well fitted to the animals; the wagons were loaded heavily with tools; and the roads encountered were in very poor shape, and in spots and grades were steep. In spite of this, and congestion of many roads with heavy truck traffic, marches of fifteen miles were accomplished when occasion demanded.

The way led through the towns of Saint-Benoit, Thumerville, and Ozérailles in France, to Fentsch, Lorraine; thence to the Luxembourg town of Bous where five days' stop was made. From there it crossed the border into Germany, Wasserleisch being the first German town to furnish billets. The Moselle River road from here was followed through Trier to Olewig, where there was a rest of four days; thence to Hetzerath.

On the road between Olewig and Hetzerath a passing truck damaged one of the limber and caisson wagons beyond hope of repair, and it had to be left alongside the road, with its load of ammunition.

From Hetzerath the Moselle was followed again to Berncastel. From there a five-mile grade over the mountains to Sohren, combined with a very bad stretch of road, nearly finished two or three teams and put the overloaded trucks to a severe test. The start was made at 7 A.M., and the road again at the usual time, this jump being from Sohren to Simmern.

The next was from Simmern to Boppard, a beautiful little town where the Train had its first view of the Rhine, and where a stop was made for six days. From there a one-night stop was

made at Rubenach on the way to the final destination. Brohl was reached December 18. Here the Train was quartered in a building which was once a hotel; idle stone-cutting works provided shelter for the animals. A wagon park was established along the river which proceeded to rise about eight feet and inundate the area, providing for two days a very instructive bit of engineer drill in the use of tackle before all the heavily loaded wagons had been yanked out of the newly formed lake.

Christmas on the Rhine was the occasion of a well-arranged party in which the entire regiment participated. Just on the edge of the river was placed the tree lighted by electric varicolored lamps. Dozens of Japanese lanterns were hung in lines suspended from poles. The regimental promoters displayed their best entertainers with really creditable results. On New Year's the Train provided its own informal entertainment, the members of the company being well qualified to carry out an interesting programme.

DRAWINGS
OF
FIELD WORKS
WITHIN THE
SAINT-MIHIEL SALIENT

THE FOLLOWING SKETCHES OF A FORTIFIED HOUSE ILLUSTRATE THE SKILL OF THE GERMANS IN ADAPTING RUINED BUILDINGS TO THE CONCEALMENT OF MACHINE-GUN EMPLACEMENTS

PERSPECTIVE
of
NORTH WEST CORNER.

FORTIFIED HOUSE
at
ST. BAUSSANT

From data furnished by D Co., 301st Eng'rs.
E. S. Warner, Captain, U. S. A. Commanding.
R. L. Whipple, Lieut. Col., U. S. A., 301st Eng'rs, Com'd'g.
S. W. Merrill, Capt., U. S. A., Topographical Officer.
scales as indicated October 21, 1918.

1st Sheet of 12

FRONT ELEVATION
scale ¼" = 1 ft
Dotted Line indicates German Construction

FORTIFIED HOUSE
at
ST. DAUSSANT
From data furnished by B Co. 301st Eng'rs
E. S. Warner, Captain, U. S. A. Commanding.
R. L. Whipple, Lieut. Col., U. S. A., 301st Eng'rs. Com'd'g
S. W. Merrill, Capt., U. S. A., Topographical Officer
Scales as Indicated October 21, 1918.

4th 24287 of 19

EAST ELEVATION
scale 1/8"=1ft

FORTIFIED HOUSE
ST BAUSSANT

From data furnished by D Co., 301st Engrs
E.J. Warner, Captain, U.S.A., Commanding.
R.L. Whipple, Lieut. Col., U.S.A., 301st Eng'rs Com'd'g
S.W. Merrill, Capt., U.S.A., Topographical Officer
Scales are indicated October 21, 1918

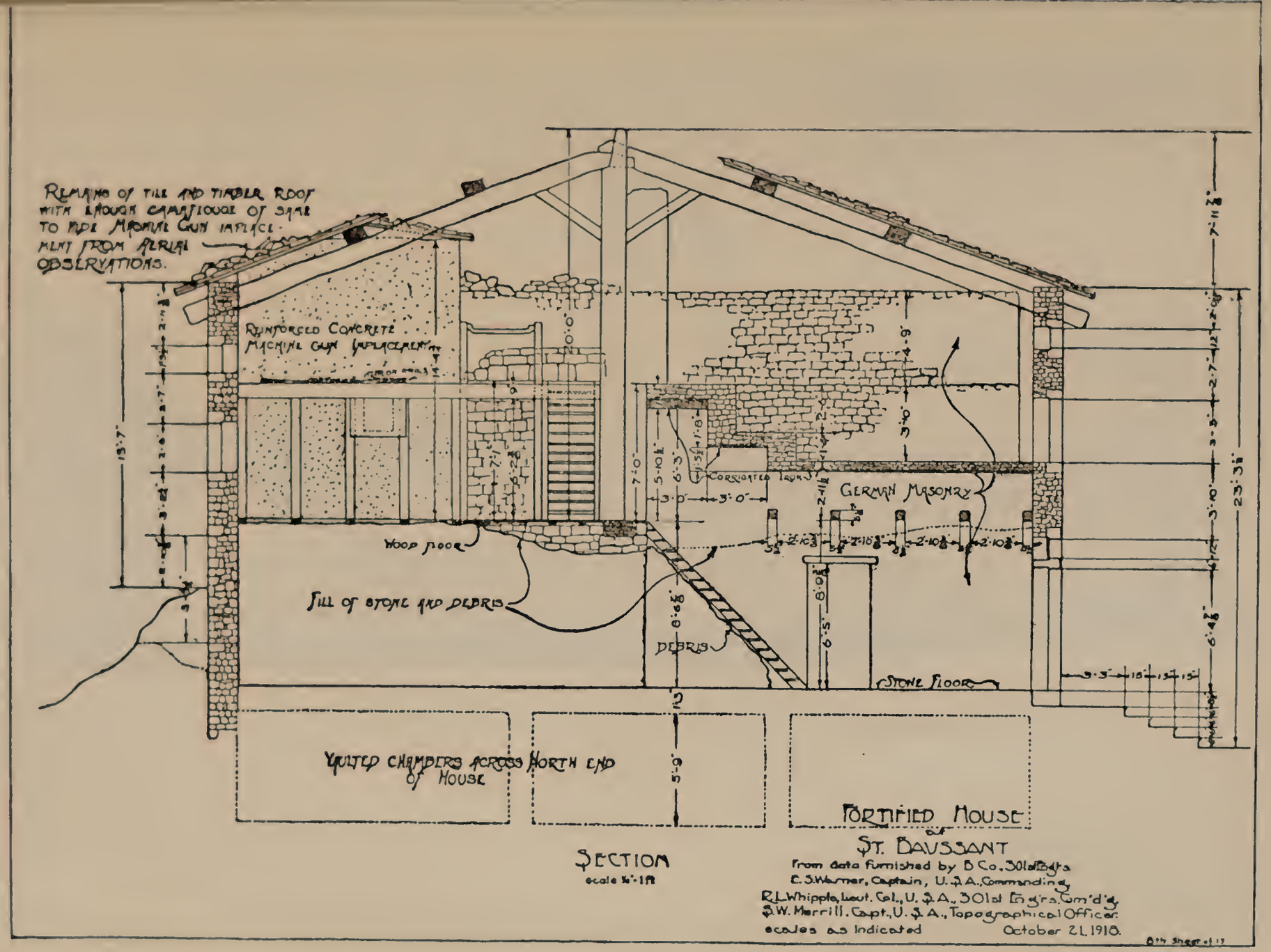
(1ST)

SOUTH ELEVATION
scale ¼" = 1 ft

FORTIFIED HOUSE
at
ST. BAUSSANT

From data furnished by B Co., 301st Eng'rs
E.J. Warner, Captain, U.S.A., Commanding
R.L. Whipple, Lieut Col., U.S.A., 301st Eng'rs Com'd'g
S.W. Merrill, Capt., U.S.A., Topographical Officer
Scales as indicated October 21, 1918.

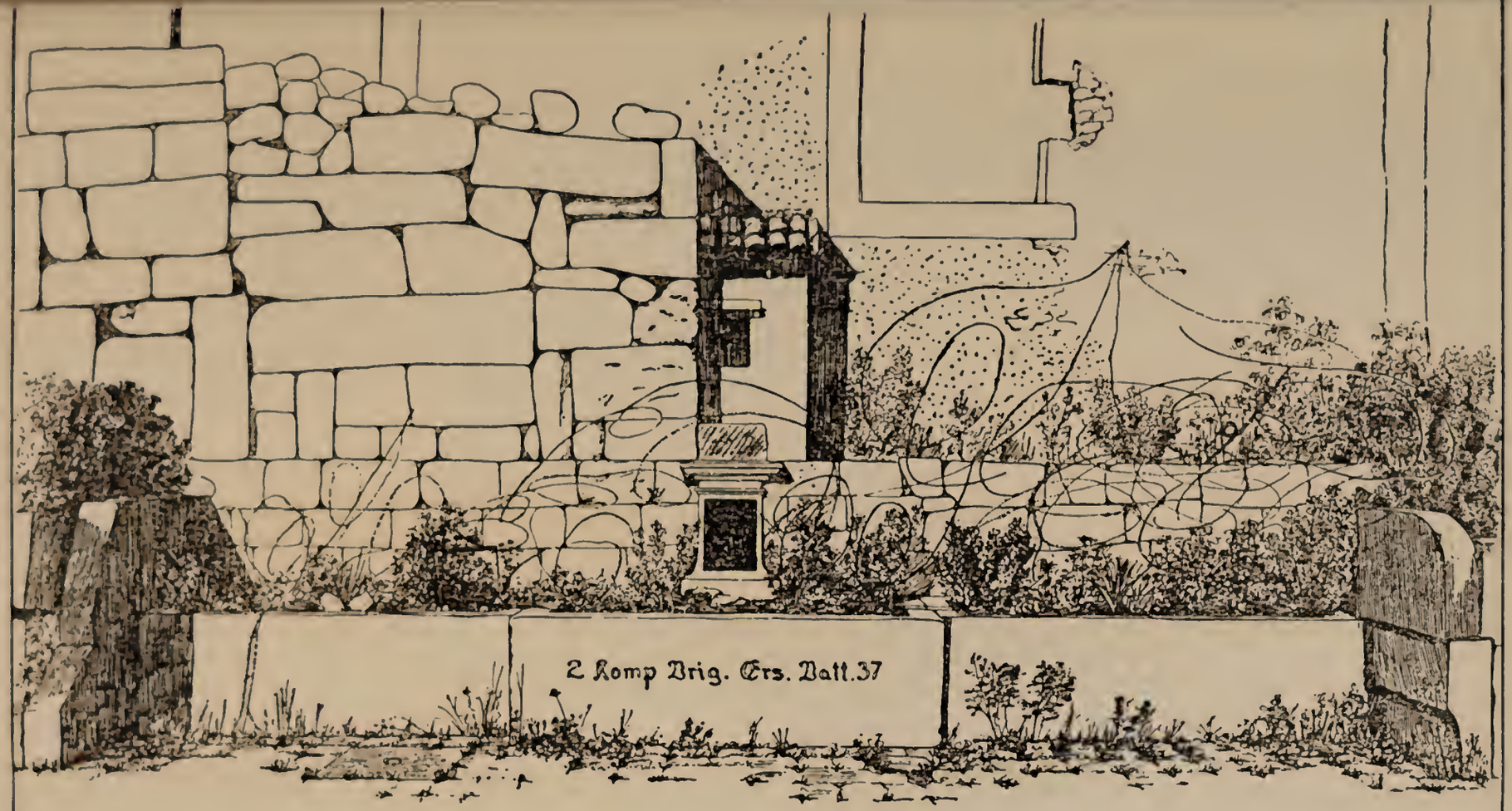
7 sheet of 19


Remains of tile and timber roof with known camouflage of same to hide machine gun installation from aerial observations.
Reinforced concrete machine gun installation
Wood floor
Fill of stone and debris
Debris
Corrugated iron
German masonry
Stone floor
Vaulted chambers across north end of house
Section
scale 1/4" = 1 ft
Fortified house
of
St. Dausant
From data furnished by D Co. 301st Engrs.
E. S. Warner, Captain, U. S. A., Commanding
R. L. Whipple, Lieut. Col., U. S. A., 301st Engrs. Com'd'g
S. W. Merrill, Capt., U. S. A., Topographical Officer.
scales as indicated
October 21, 1918.

VIEW TO THE SOUTH-EAST
THROUGH
PILL BOX OPENING
Section 3

FORTIFIED HOUSE
at
ST. DAUSSANT
from data furnished by D Co., 301st Eng'rs
E. S. Warner, Captain, U. S. A, Commanding
R. L. Whipple, Lieut Col., U. S. A., 301st Eng'rs., Com'd'g.
S. W. Merrill, Capt., U. S. A., Topographical Officer.
Scales as Indicated October 21, 1918.

13th Sheet of 13

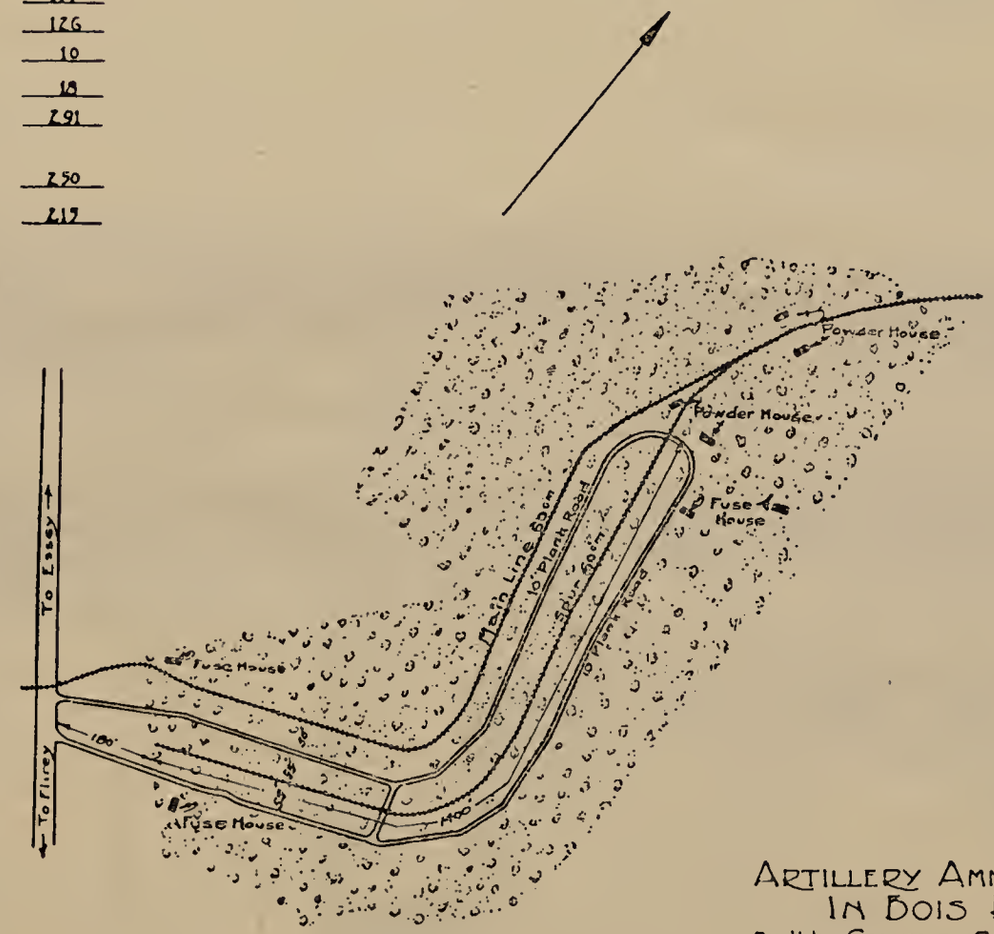


GERMAN GRAVE:
at
LOUPMONT

R.L. Whipple, Lieut. Col., U. S. A., 301st Eng'rs. Com'd'g.
A.L. Shaw Capt., U. S. A., Topographical Officer.
November 9, 1918

No. Man-days for Entire Work	2050
" " " to Build 100m Plank Road	177
" " " " " 100m 60cm R.R.	126
" " " " " Fuse House	10
" " " " " Powder "	18
" " " Work on Camouflage	291
Ave Morning Report Strength of Company	250
" Actual Men Available for Work	217

* Includes Clearing, Grading and Drainage

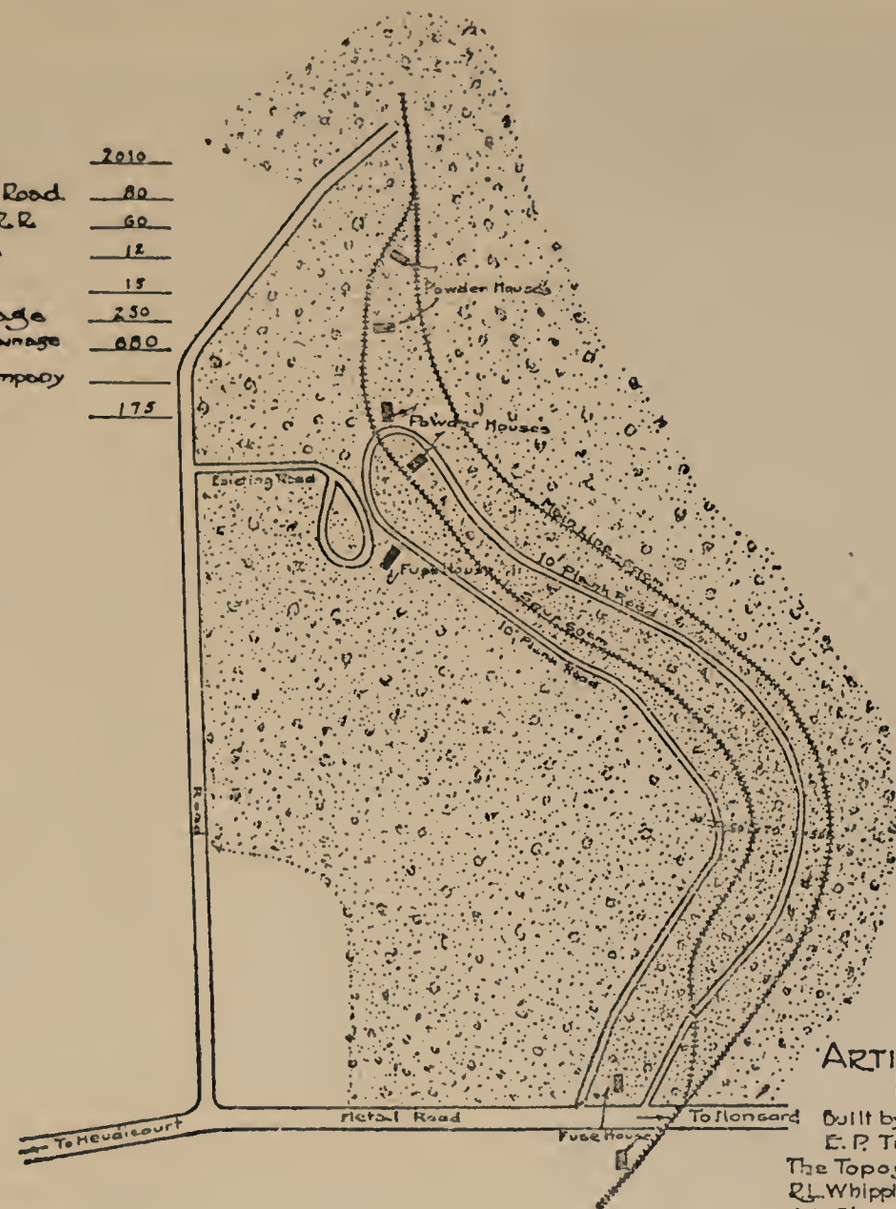


ARTILLERY AMMUNITION DUMP
IN BOIS REMDU

Built by Company C. 301st Engineers
M. J. Betterley, Captain, U.S.A., Commanding
The Topographical Office, 301st Engineers.
R.L. Whipple, Lieut Col., U.S.A., 301st Eng'rs, Com'd'g.
A.L. Shaw, Captain, U.S.A., Topographical Officer.
Scale, 1in = 200ft. October 28, 1918

File No. 2.

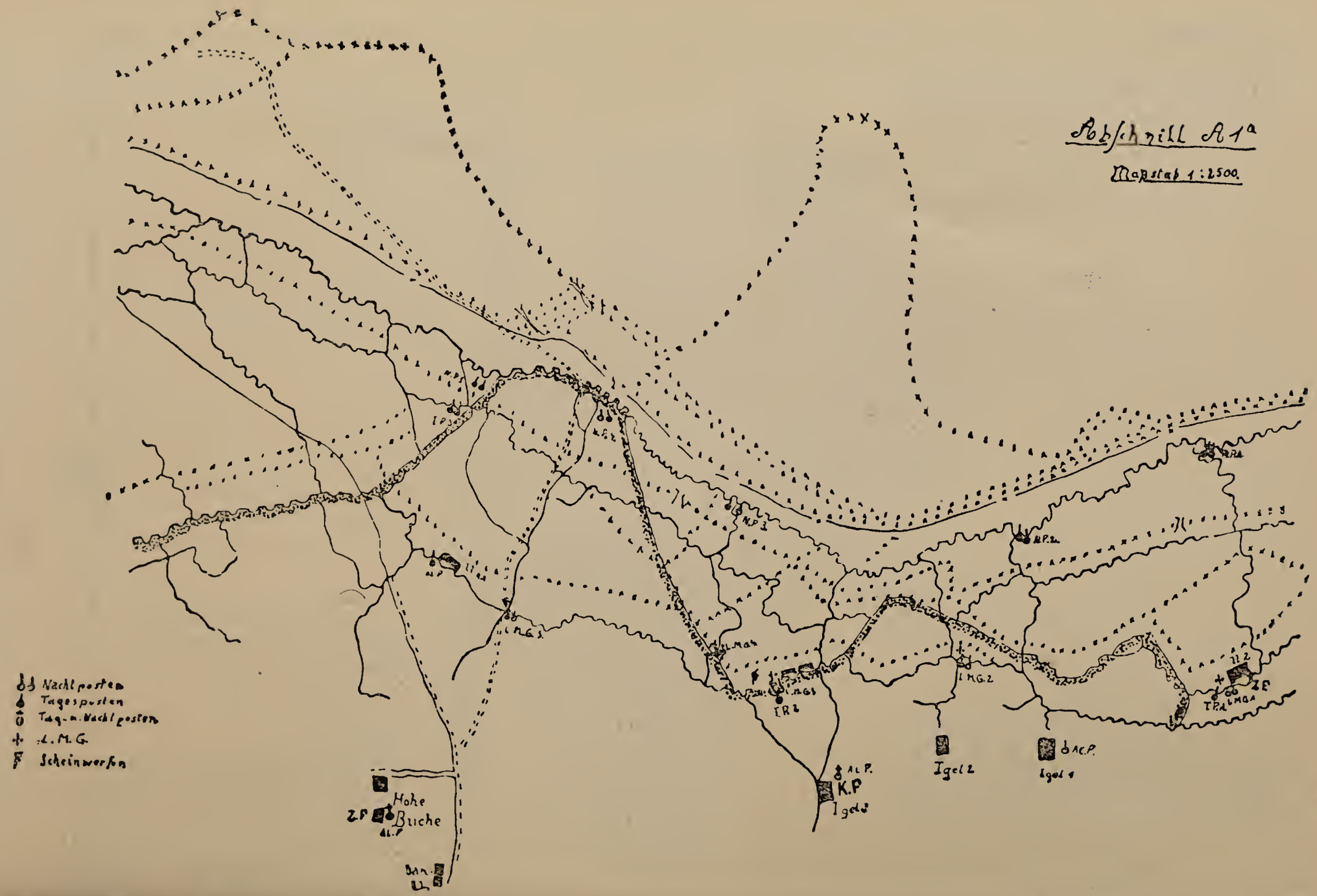
No Man-days for Entire Work	2010
" " " to Build 100m Plank Road	80
" " " " " 100m 60cm R.R.	60
" " " " " Fuse House	12
" " " " " Powder "	15
" " " Work on Camouflage	250
" " " for Clearing, Grading, Drainage	880
Ave. Morning Report Strength of Company	
" Actual Men Available for Work	175



ARTILLERY AMMUNITION DUMP IN BOIS DE PANNES

Built by Company A, 301st Engineers.
E. P. Trott, Captain, U.S.A., Commanding
The Topographical Office, 301st Engineers
R.L. Whipple, Lieut. Col., U.S.A., 301st Eng'rs Com'd'g
A.L. Shaw, Captain, U.S.A., Topographical Officer
Scale, 1 in. = 200 ft. R.F. = 1:2400 October 28, 1918.

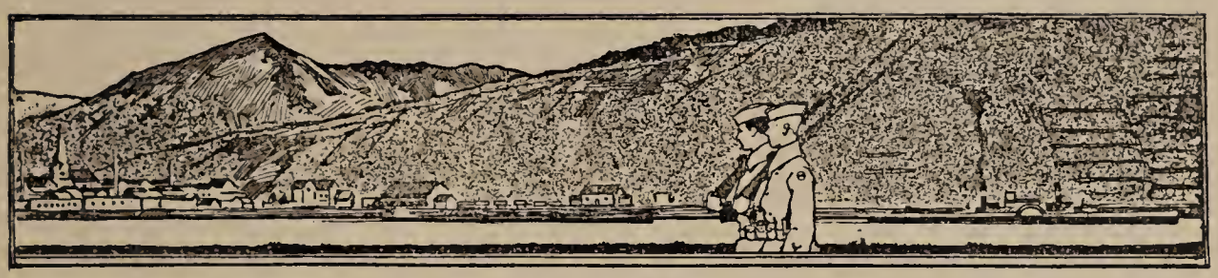
File No. 1



REPRODUCTION OF ORIGINAL GERMAN MAP ON OILED PAPER, SHOWING LOCATIONS OF MACHINE GUNS AND OBSERVATION POSTS

AMMUNITION-DUMP AT BOIS DE PANNES BUILT BY "A" COMPANY

A GERMAN CEMETERY



Army of Occupation

PART IV

AN AIR SQUADRON

PART IV

CHAPTER I

THE MARCH TO THE RHINE

BEFORE crossing the German lines on the march north, it was necessary to do such work on the roads as would permit transportation moving over them. This task was assigned to the 108th, 103d, and 6th Engineers. To assist in this, "A" Company, this regiment, was assigned to the work under the supervision of the Commanding Officer of the 108th, and worked on the road near Saulx; "E" Company in the same way locating at Hannonville. In the 2d Battalion Companies "D" and "F" were associated with the 6th Engineers on any necessary work on the Xammes–Charey road.

"B" and "C" companies and the 1st Battalion Pioneers proceeded to Woël, where they remained during the balance of the night of the 16th, awaiting orders from the Commanding Officer, 103d Engineers. The roads in this section had been mined by the enemy, evidently in preparation for falling back; these were disposed of by advance parties of divisional engineers and there was little other work to be done here. The companies in the morning moved to Thillot where they billeted for the night.

Next morning reveille blew at 3.30 A.M., when the rolling kitchens became busy scenes attending to mess lines. The orders were that the tail of the column must have cleared No Man's Land by 6 A.M. On the 17th of November the Third Army, known as the Army of Occupation, began its forward movement upon one of the most historic marches recorded in history.

The regiment had now become a part of the Third Army, commanded by Major-General Joseph T. Dickman. It had served with the First, Second, and Third Armies, the three American armies organized by General Headquarters for the purpose of carrying on operations at the front, but had remained throughout with the Fourth Corps as Corps Engineers.

The long column, composed of the 1st Battalion of the regiment (except "A" Company which had gone ahead), and the 1st Battalion of the Pioneers, with the trains, swung through the débris-strewn towns and the deserted streets, to Hannonville, where the remaining battalion of the Pioneers was taking the road. Colonel Whipple, having spent the night at the temporary Regimental Headquarters which had been established there, was given an opportunity to watch the column as it marched through.

Leaving the town, which only a few short days before had been enveloped in a storm of bursting enemy shells, the column entered the broken, torn, desolate stretch of No Man's Land. In the dim, chill shadows of early morning, the twisted wire and interminable parallels of trenches, some half-filled with water; the broken concrete structures; the dark piles of stones which had been towns; the stumps of shattered trees — combined to make a scene of indescribable desolation. The completely blasted look of this dreary waste upon which, for months, the shells of the opposing forces had alternately leveled and torn the ground, seemed accentuated by the unaccustomed silence, which, save for the tramp of feet and a low murmur of conversation, spread with the gloom, like a great shadow over the land. At a certain point were seen large, very deep trenches with pill-boxes at regular intervals and well protected by band after band of heavy wire — this was the famous Hindenburg line, which extended from the sea to the Alps. With this as its bulwark the German General Staff had thought to hold the armies of the Allies in check and now — a memory; not a sign of life or movement along the black lines which marked its trace, nor a sound which might recall those things for which it once stood. At six o'clock the tail of the column had left all behind.

Meanwhile Regimental Headquarters, the 2d Battalion, and their Pioneers had been also in march. These companies, having been more widely separated, had additional marching to do; they took the right road as the 1st Battalion did the left.

The first days were trying ones for the entire regiment. Preparation for the march, though complete as was possible, had been limited by the short space of time. The animals were poor; some had come from veterinary hospitals; the greater number had not

THIAUCOURT

VIGNEULLES—GERMAN PRISON PEN

been worked in teams before nor had they been fed regularly. The mules were very small, usually many lead animals having to be used as wheelers. In many cases the harness did not fit; the collars were large and were the cause of many chafed necks. Full packs were carried by the men — gas-mask, steel helmet, rations, filled canteen, belt of ammunition, extra pair of shoes, and an overcoat in addition to the rifle and bayonet. Due to the weakness of the animals the officers walked. The limber and caissons gave continual trouble owing to their weight. On the left road the transportation was fortunate in passing a stretch which would have held them fast in the mud had it not been frozen just enough to permit getting over.

For many days prior to November 11, by means of our Intelligence Department, by the questioning of prisoners, and by air photographs, it was learned that the enemy was making preparations to block the lines of communication should our troops push forward, or in case the enemy decided to fall back. Some of the air pictures showed stretches of water caused by the inundation of streams which had been dammed. The first of these was found just south of Riaville, where a stream crossed the road and the water had backed up and overflowed the banks and adjacent land. The dam had been subsequently broken through, with the way open, but leaving the ground soft and the road in bad shape.

Certain routes to be used as Corps roads had been laid out prior to the march; this had been done by the Staff, from maps, with the result that the regiment, during the first few days, found itself confined to roads which were not ordinarily passable. No choice in the matter was given; the Corps roads were to be followed and no others. (See Appendix E, Extract, Report of Operations for November.)

The German Army in evacuating the occupied territory had to bend every exertion to getting its men and *matériel* back, and even with the perfected system of sixty-centimeter track, much traffic had to go by road. Neglected for years, these roads were unable to stand up under the burden, and our army encountered ruts, holes, and mud. Our artillery had faithfully registered in this section, and the filled shell-holes still further added to the difficulties. The motor transportation, as well, had to move with

great caution, and breakdowns were not uncommon. The repairs were, of necessity, of a temporary nature, just enough to make possible the movement over the roads.

In the first five kilometers behind the German lines were to be seen some of the preparations the enemy had made to withstand the threatened attack. Trenches which had been abandoned in 1914 had been rebuilt, parapets made, and drainage systems started. Fresh concrete had been placed and material dumped for dugout construction. New entanglements had been put up and machine-gun emplacements laid out; yet all of this work had the appearance of having been done hurriedly and showed none of the skill or care of the old work. It was unfavorable ground to work in; many of the newly dug trenches now became filled with water. The artillery as usual had searched out the enemy working parties, as was testified near Paroid where newly made graves were marked by crosses on which were stenciled "Gefallen, Nov. 10, 1918."

At this time Headquarters and the 2d Battalion had taken the right road and the 1st Battalion the left. From Paroid, which "A" Company had reached the previous night, that company followed the 1st Battalion column, having much difficulty with its transportation. From Paroid north, the road improved somewhat, but was still heavy. It led through thick detached woods which had been occupied by the German Reserves. These "lagers" were well built and comfortable and had been in use for a long period. Material and engineer dumps were abundant and all reached by the sixty-centimeter track. Much ground had been cultivated by the soldiers; in many places large tracts had been given over to cabbages and mangels.

Gradually the column began to leave behind the more intimate evidences of the war and only large shell-holes were seen, made by the 9.2's and our heavier calibered guns. Shortly before noon the advance guard crossed the bridge leading to Saint-Jean de Buzy. This had been mined, and in the masonry arches heavy charges had been placed; the stones had been taken out and replaced with explosives, the opening being then sealed with concrete. The lead wires had been removed by now and there was no danger.

THIAUCOURT—THE RESULT OF A NIGHT'S SHELLING BY THE ENEMY

Saint-Jean de Buzy, located on the lateral road which connects Étain and Conflans, had all the appearance of being inhabited, in contrast to the towns behind, which were simply piles of stone, some overgrown with grass. As the column passed through the fairly clean, quiet streets, there was the sensation of expecting to see some one appear at a window, or a door open. There was not a human being visible; the town was absolutely deserted. In the houses were scattered equipment of every kind; stacks of arms were visible through the windows; food and dishes were on some of the tables. Rooms which had been orderlies' rooms had papers and blank forms scattered on the floor; everywhere there was evidence of recent German occupancy. The place had not been shelled and was not otherwise damaged; it had been used by the enemy to billet his troops and he evidently had left in great haste.

About seven kilometers to the right was Jeandelize, through which town Regimental Headquarters and the 2d Battalion would pass, as they did, shortly after. At this point were assembled many of the American and British prisoners which had been released by the Germans. There was much congestion here as the road north was also used by divisional troops. A hill rising on a steep grade out from the cross-road proved an obstacle to the Train, whose animals were rapidly tiring. Regimental Headquarters was to be established that night at Ozérailles, the end of the day's march.

The route of the 1st Battalion led to the left of Saint-Jean over an open field and a wood road. (See Progress Map.) The animals failed utterly over this stretch and the wagons had to be hauled through the mud and swamp by rope and man-power. The wagons left behind were sent around by way of Jeandelize and Thumerville.

While one of the officers in the left column was reconnoitering the roads ahead and had reached the vicinity of a large farmhouse, an old Frenchman in nondescript attire advanced cautiously toward him and asked, "Americans?" "Yes," responded the officer, "and there are many more behind," pointing in the direction of the column. "You are the first American soldier I've ever seen. We could not believe you were coming until we saw

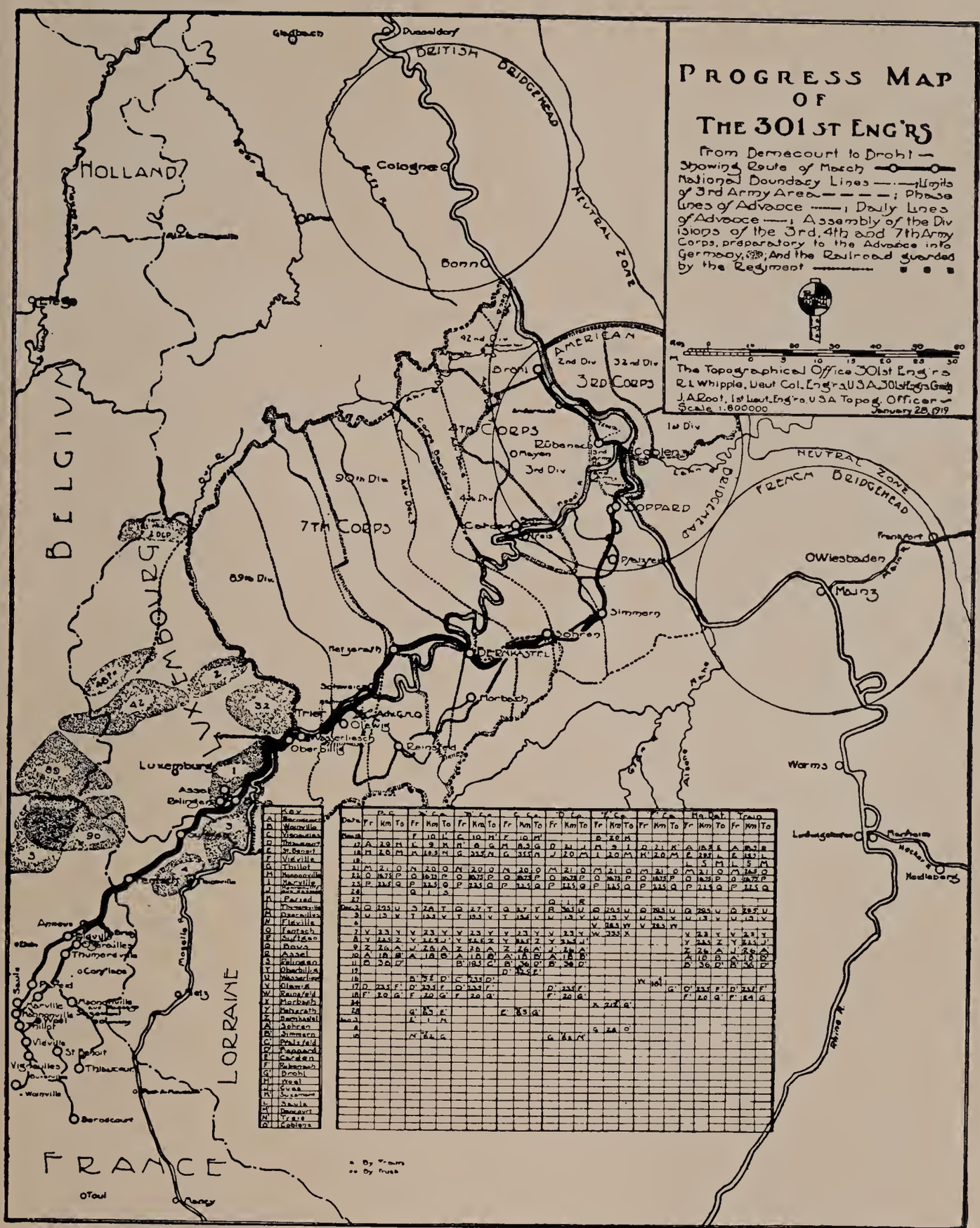
the last German leave." The old fellow reached down and felt the cloth of the officer's overcoat. "You have fine clothes," he said, "but the color is a strange one." He bowed with profound respect, expressed his thanks for the entry of the troops, and returned to the farm.

By continued efforts the wagons reached Mouaville at just dark, where the 2d Battalion of the 51st Pioneers, also the 51st Regimental Headquarters, were to billet. From here the road led to La Marjolaine Farm, but was impassable there, so a détour was made by way of Gondrecourt and then to Fléville, the end of the march. The companies reached the town about 5.30 P.M., but some of the wagons did not get in till nine o'clock. "A" Company had left Paroid late, and followed the battalion by another road, but arrived at an early hour.

The experience of the right column was much the same during these first days; some of the companies had been required to travel a long distance to form with the column and it had been a hard march. The arrival at the two towns, Ozérailles and Fléville, marked the completion of what was known as the "First Cycle."

The two days in the towns were given over, first, to rest for the men and animals, then to preparations for the resumed march. The towns had been centers for German troops and stripped of all food and live-stock. About half of the original population still remained and the mayors did all in their power to welcome the regiment. French flags mysteriously appeared after having been hidden away for over four years: an American flag of five wide bars and the field in the lower corner waved triumphantly over the "Mairie."

Each company had been allotted a truck which had been secured from the Army. This was most fortunate, for without them on this march the men would have fared badly. From Fléville these trucks in the left column were sent back as far as Vigneulles to bring up food and supplies left behind by the Pioneers, who were without transportation. A special trip was made by one to bring up "A" Company's limber and caisson which had become mired near Paroid. From Ozérailles all the trucks were used for service with the Supply Officer,



PROGRESS MAP — MARCH OF OCCUPATION

going as far back as Beney and Vigneulles for supplies for the regiment.

The time was spent in cleaning wagons and making repairs; harness was got into shape, equipment gone over, and additional instructions given in connection with march discipline and the general behavior of troops in the evacuated territory. When all was ready there was an inspection by the Regimental Commander. The two battalions of Pioneers returned to their own regiment and remained with it. November 21st, the column resumed march, the right and left column meeting at Anoux, from which town the regiment thereafter marched as a unit. (See Field Order No. 2, Appendix E.)

In order to facilitate the serving of food at the noon halt, all the rolling kitchens were placed at the head of the transport column, and, as the companies fell out to the right of the road, each company's kitchen came forward to its company. The food had been prepared and cooked while in transit and it only required the opening of the biscuit cans and arrangement of the kettles in order to supply the mess line. After each halt for food, which was about fifty minutes, the grounds were policed and débris burned or piled.

Day by day in their order, each company furnished the advance guard. The battalions also, in heading the column rotated. The animals were slowly improving in condition and appearance and the transport was able to maintain the pace set by the companies. It was found that, though otherwise marching at route step, marching was made easier by remaining in step and cadence, and with the help of the band a good swinging pace in step was customary. For those men who had foot trouble or were otherwise unable to hold out the day, there was recourse to the ambulance attached to each battalion.

The regiment was now approaching the south edge of the great Lorraine iron ore district through which it would soon pass. On the right was the famous town of Briey, and southeast, Conflans. Both columns having met at Anoux, all wagon and motor transportation was formed together and followed in the rear. The weather was excellent and much had been accomplished by the rest in billets. The advance guard preceded the column by about

five hundred yards and march discipline was carefully observed. Through Mancieulles to Tucquégnieux, past a large ore mine; then the houses of Trieux became visible.

Trieux is located on a ridge and on the frontier, the last town in France before crossing into Alsace-Lorraine. The people assembled on the streets and with much flag-waving and scattering of flowers welcomed the regiment. After the ten-minute rest on the far edge of the town, the column descended into the valley passing between the two heavy metal posts, bearing on them the Imperial German insignia. These marked the exact frontier line and had been placed by the Germans at the end of the Franco-Prussian War, and now, at the end of forty-eight years, were about to be thrown down by the French.

The village priest of Lommeringen (which by this time has resumed its French name, Lomérange) had made the occasion of the entry of American troops into his town a great one. The entire village was assembled in the square in front of the church. On the outskirts children decorated with flowers and ribbons led the regiment under the evergreen arches and through the gayly draped streets. A halt was made in the square to allow the priest to read his proclamation to the regiment. He had been a captive in the great German fortress of Ehrenbreitstein during the war, and displayed an earnestness which was unmistakable. After forty-eight years of German occupancy the little town had been again restored to France. Following is a translation of his address, the original of which is reproduced herewith:

Sirs:

He, who on this occasion has the honor of addressing these words to you, is a captive from Ehrenbreitstein.

It is my good fortune, likewise a great honor, to be the first on the Lorraine border to greet the valorous French Army, and with it her noble ally, the American Army. There never was a more solemn occasion. Here, after struggles as heroic as they were bloody, the latter crosses the threshold of Lorraine as justly proud as the enemy leaving it yesterday was deeply but deservedly humble.

A salute, friends. A salute, more from the heart than the lips,

Messieurs le Général

Celui qui en ce moment a l'honneur de vous adresser la parole est un captif d'Hindenburg.

Ce m'est un grand bonheur comme aussi un grand honneur de pouvoir, les armes à la main, saluer la valeureuse armée française et avec elle sa noble Alliée l'armée Américaine au moment solennel où enfin sont jamais, à après de luttes aussi héroïques que sanglantes, cette province française et le sol de la Lorraine, aux autels de la légitime orgueil qui l'honore, lève le guidon profondément mais profondément humilié.

Salut aussi, salut du cœur, plus encore que de la parole, à la Mère-Patrie toute entière, à cette France toujours aimée, de laquelle une noble lutte depuis des ans nous avait violemment séparés.

Monsieur Deschanel, président de la Chambre disait un jour dernier en apprenant la heureuse victoire qu'aucune parole humaine ne saurait traduire le bonheur de la France. Permettez-moi à mon tour cette parole de Monsieur le Président de la Chambre, et comme lui je dis qu'aucune parole mortelle ne saurait exprimer la joie qui déborde de vos nos cœurs.

Merci à nos vaillantes Armées de Marseille de Lorraine qui au mépris de la mort elles ont accomplies pour notre délivrance du joug allemand et la reconquête de la Lorraine.

Merci à leurs chefs si jamais illustres qui ont du triomphe bien immérité préparé depuis de longues années pour la lutte et fanatisé pour l'espoir français pour la victoire.

En attendant que plus tard l'histoire écrive ces prodigieux exploits qu'elle les grave sur le bronze et le marbre, qu'elle les lègue à la postérité, aujourd'hui, le bonheur même que vient de disparaître, je veux exprimer publiquement notre toute admiration pour tant de prodiges d'armes et tout simplement au nom de l'armée française et celles de ses fidèles Alliés, et telles sont notre cordiale reconnaissance.

Bien chers Amis que du Cœur Sacré de Notre-Jésus, vous la puissante protection duquel, après tant d'épouvantables combats avec une espérance quasi-surhumaine sous les coups de victoires en victoires vous répondant sous le Drapeau, fête aimée du Christ, vive l'Héroïque Amérique, et surtout leur Alliée des meilleures bonnes heures.

Vive nos armées victorieuses

Vive la France et la Cour d'Amérique

Vive le Sacré-Cœur de Jésus généralissime des armées de l'Entente!

Le Cur de Lommeringen

Fait ainsi à l'ordre du Régiment

le Viomé

FACSIMILE OF PROCLAMATION READ BY VILLAGE PRIEST UPON ENTRY OF THE REGIMENT INTO LOMMERINGEN

to the entire Mother Country, that beloved France from whom for forty-eight years a solemn treaty separated us. M. Deschanel, President of the House, said the other day upon learning of the happy victory that human speech could not express the happiness of France. Gladly, I seize upon the words of the President of the House, and like him I repeat that words cannot express the joy that overflows all our hearts.

Thanks to our valiant armies, marvels of bravery, who scorning death succeeded in delivering us from the German yoke and in reconquering Lorraine. Thanks forever to their illustrious chiefs who triumphed over an enemy prepared for many years for the struggle and fanaticized by the delusive hope of victory.

Trusting that history will record these prodigious exploits, — may she write them on stone, may she engrave them in the steel and the bronze taken to-day from the enemy on the very frontiers which have just disappeared, — I desire to publicly express our true admiration of the many wonderful feats so gallantly performed by the French Army and those of her faithful Allies and to tell them of our heartfelt gratitude.

Very dear friends, may there be from the Sacred Heart of the King Jesus, under the mighty protection of which after four years of frightful fighting, you, answering under France, beloved daughter of the Church, have brought about, with amazing swiftness, victory after victory; upon the generous and noble America and upon all her Allies may there be its greatest blessings.

Long live our victorious armies; long live France and her sister, America; long live the Sacred Heart of Jesus, Generalissimo of the Armies of the Entente!

Fentsch (Fontoy) is located about fifteen kilometers west of Diedenhofen (Thionville), a large center in machine manufacture and coal industry, and was the billeting point that night; in this town there was not the jubilation at the entry of the troops which had been known south of the frontier. There were Germans here who rendered no salute to the colors, nor in any other way showed their pleasure or displeasure. But stolid as they were, they showed no disposition toward any action of a hostile kind.

As a matter of fact, during the whole march there was nothing which in any way could have been looked upon as a demonstration. As an infantry colonel said, the most hostile act he had seen was at a town where a little German girl "stuck out her tongue" at him.

One night at Fentsch and another at Suftgen and the regiment was on its way to one more frontier, that of the Grand Duchy of Luxembourg. At Suftgen the Chief of Staff, Fourth Corps, in no uncertain terms called attention to some failings in the regiment in appearance, march discipline, and other points. He made it plain that if certain necessities, such as dubbin for shoes, oil for the wagons, and buttons for uniforms, could not be obtained of the Supply Officer, the thing to do was to get a new Supply Officer; where these articles could be drawn, he did not attempt to say. By working half or all the night the wagons and trucks were washed and the necessary changes made, so that next morning an inspection would have been almost welcomed.

It was with no regret that the cramped billets in the not over-clean town were left behind. At about ten o'clock the advance guard crossed the border into the Grand Duchy, on the Euringen–Frisange road. The roads in this little independency were found to be very good and well kept, and the effects of heavy war-time traffic were not in evidence. The day's march ended at Bous; also the end of the "Second Cycle."

In Luxembourg, part German and part French, speaking some of each language, yet having a patois of its own, it was not always possible to decide with which nation it was most in sympathy. When speaking with Americans, however, the shrewd peasant was wholly pro-Ally. Ruled by a young woman, the Grand Duchess Marie Adelheid, surrounded on two sides by Germany, on one by France, and one by Belgium, a tiny self-supporting remnant of troubled European history, it still has remained intact in its little domain. Its quaint old towns, with their quiet, simple folk, seemed not to be greatly affected by either the war or the demand of present-day activities. The Germans had crossed and recrossed their frontiers at will, but had paid for such supplies and services as they had requisitioned. Being an independent state, none of its citizens had

THE ADVANCE GUARD AT THE ALSACE-LORRAINE FRONTIER

served in the German Army. Its own army numbered three hundred men.

Luxembourg, its chief and only city of importance, and the seat of the government, is most attractive. There is an appearance of wealth and richness about its large stone buildings, broad, tree-lined streets, promenades, fine homes, and well-built bridges, which adds to the glamour of the city which has furnished many scenes for stage-settings. On the streets were the brightly colored, conspicuous, ornamented uniforms of Europe before 1914, the first which had been seen.

Bous was far from an attractive stopping-place; it was fairly dirty and not large enough to billet the regiment, "A" Company going to a near-by town. Disciplinary drill, work on transportation and equipment, and inspections filled the days. This town will ever bear the unpleasant memory of being the place where Spanish Influenza made itself felt in the regiment. "A" was first and hardest hit. Luckily it was isolated, which did much to confine the cases. Many men had to be evacuated to the hospitals by ambulance. For the first time in many weeks the bandsmen were assembled and the rust cleaned out of the instruments. Practice in an empty garret enabled it to trim off the rough spots, and one day the Luxembourgers were startled by its initial efforts.

December 2, the companies were on the road swinging to the right through Remich to the Moselle River, which was followed as far as Gravenmacher. Even though the good weather had ended, the march along this beautiful stream was one of great interest. The bridges over it had been allotted to the different divisions for crossing, the one at Gravenmacher having fallen to our regiment. It was a splendid masonry structure extending from the city of Gravenmacher to a town on the German side. Word having been passed along the line that the column would be inspected at the bridge approach, the ranks were dressed, road space checked, the pace regulated, and with colors leading and the band between the two battalions, the crossing was made. On the other side — Germany — a fact that was not lost to the soldiers, as could be judged by the comment, opinions, and criticisms which passed from head to rear of the column.

At Oberbillig and Wasserleisch the regiment billeted at night under German roofs. There was no excitement or visible resentment on the part of the people; all seemed to take it as a matter of course. The Gemeinde Foerster was sent for and instructed to find billets for all and furnish wood and straw, which he did quietly in most cases and without protest except as to available room.

One night at these towns and the city of Trier (Trèves) lay ahead. This is one of the larger cities in South Germany and represented more of the real Germany than had yet been seen. Not long after crossing the Saar at Konz, the wagons rattled over the block pavements of Trier. Orders from the Corps had assigned Olewig, a town on the edge of the city, to the regiment for billets, making it necessary to march through Trier from edge to edge Here, as in other places, the people were curious — nothing more; groups on corners and individuals in windows gazed at the passing troops; some on the street, not wishing to appear interested, turned away; children by the dozen flocked around and followed the band. Occasionally a man still wearing part of his "feldgrau" uniform would click his heels together and snap into the smart salute of the German Army. Beyond the Roman ruins of Porta Nigra the street turned off to Olewig.

In this town, after billets were found, the usual routine began, but was interrupted by Corps orders making it necessary to place guards on the eighty-three bridges and culverts on the Ruhwer–Paulin–Coblenz line; this was done to prevent any possibility of the destruction of railroad structure by fanatics or by other means. December 6, "E" Company began its march to take over its section from Rheinsfeld to Morbach, "F" Company from Ruhwer to Rheinsfeld. December 11, "A" Company took a section of railroad between Morbach and Kastellaun, and "B" Company, Kastellaun to Ehr; next day "D," Ehr to Boppard, and "C," Boppard to Coblenz. Olewig and Berncastel proved to be the undoing of the two majors and Lieutenant Garran, who contracted influenza and were sent to the hospital in Trier. By this, additional duties were added to Colonel Whipple's lot, which at best was not an easy one. By way of recreation certain numbers of men were permitted to visit the city of Trier. There

THE REGIMENT NEARING LOMMERINGEN

was much in the way of interest; the city itself, the shops, and some well-preserved Roman ruins, as well as an opportunity to see how the enemy people looked and had fared after four years or more of war. From Olewig ambulances and trucks were sent back to Oberbillig to bring up the influenza patients who had been left behind.

At Berncastel the route of march crossed the Moselle and ran through Sohren, Simmern, Pfalzfeld, and Boppard. Boppard as a billeting place was a remarkably fine town, a watering-place, which in peace-time had been very popular among the Germans and tourists. It is built on the bank of the Rhine, and as he marched, every soldier carefully watched for the first glimpse of the famous river. Suddenly, on making a left-hand turn on a hill-side, the blue-gray water became visible, a discovery which was immediately made known by shouts and cheers, aided by the band's playing "It's a long way to Berlin." The town was to have been given to the regiment for a permanent or half-permanent station but for a change which was made in the disposition of the Allied troops, and which required that they remain west of the Moselle River.

Between Carden and Treis a ponton bridge of German equipment had been built and was being maintained by German labor. The bridge connected Cochen (Corps Headquarters) with the metaled road on the right bank of the Moselle and provided a line of communication with Coblenz. Once a day it was necessary to let river steamers through. It became evident to Colonel Ralston, Corps Engineer, that the bridge should be operated by engineer troops of our own, so, December 14, one platoon of "C" Company took charge. The following day the entire company arrived and established itself at Treis. This was necessary, as the river had risen rapidly and the work of numerous extensions required more men.

Regimental Headquarters left Boppard December 17, and, moving *via* Rubenach, reached Brohl-am-Rhein the next day. Brohl became permanent headquarters and the end of the march of the regiment. Companies "A," "B," "C," and "D" had been relieved of railroad guard duty December 14, "F" Company the 14th, and "E" Company the 23d. "F" Company had been

relieved of its duty at Rheinsfeld December 16 by French troops, and proceeded to Brohl by rail, and by doing so arrived one day ahead of Regimental Headquarters.

Between November 17 and December 18 the regiment had marched from Bernécourt, France, to Brohl, Germany, a distance of 328 kilometers, or about 197 miles. Some of the companies taking other routes, until the regimental column was formed, traveled greater distances. During a march of five consecutive days, December 7 to December 11, inclusive, from Olewig to Boppard, the greatest distance, 125 kilometers were covered and on the last of these days the greatest length of march occurred in a single day, December 11, thirty-six kilometers from Simmern to Boppard. (See Extract Operations for month of December, Appendix E.)

Under conditions of weather and roads which were not at all times favorable, with animals unfitted for the task, and with equipment which required constant adjustment, the march was successfully accomplished. Despite the sickness, with its delaying influences and the overburdening of transport, there had been no breaks in the routine other than those authorized, nor had there been any undue hardships. Of necessity the march had been beset with difficulties, for a forward movement of two army corps followed by a third, with the French on the right and the British on the left, all bent on maintaining a schedule regulated on the evacuating German Army, is a feat performed only from time to time in the history of nations.

THE REGIMENT ON THE MARCH OF OCCUPATION

CHAPTER II

SUPPLY AND TRANSPORT

Captain Powers having been given command of Company "D," which, since Captain Waldron's departure had been commanded by Lieutenant Shepard, Captain Kittredge assumed the duties of Supply Officer, the change occurring about the time the Regimental Headquarters reached Ozérailles. Lieutenant Bartholomew, whose services as Supply Officer or assistant had utilized the greater part of his time, rejoined his company at Puvenelle Woods. The position of Supply Officer is at no time an enviable one, and during hostilities it is one that requires unusual activity and persistence; much foresight must be exercised in order to anticipate the needs of the regiment. The days for drawing, the changing railheads, arrangement for transportation to widely separated units, fulfilling the multitude of special wants and requests of the companies, the never-ceasing demand for supplies difficult to obtain, — these are but routine in the daily life of the Supply Officer, and he must still have a reserve energy for particular emergencies which are constantly arising.

The lack of a Supply Company is often keenly felt by an Engineer unit, which, in accordance with the tables of organization, has none. In the field the units are usually separated by great distances and on work which requires supplies of a varying nature. To the regiment, also, may be attached Pioneer or Service units with men and transportation to be fed, but cut off from their own sources of supply. This additional work falls to the Engineer regiment, which, in order to answer the call upon it, must use men from the latter companies to make up the loading details for supply work.

At the end of the first days of the march it was seen that a change in the arrangement of motor transportation was necessary. The trucks customarily formed with the Train for the daily march, but this required that they regulate their speed to the slower rate of the companies, with the resultant waste of gasoline

and oil and wear on the machinery. By assembling the trucks in a train and placing them in charge of an officer, Lieutenant Begley, they could leave at a certain time and reach the billeting point ahead of the regiment. This was put into effect while Regimental Headquarters was at Ozérailles, November 20; in this way the trucks were more ably kept in repair and gas and oil provided.

On one occasion Captain Powers and Lieutenant Bartholomew made a trip to Conflans and secured ten thousand gallons of gasoline, which stood the regiment in good stead for some days, particularly as a shortage of gas existed, as was realized by Corps Headquarters when it was moving from Étain and suddenly found there was just enough gas on hand for the Commanding General's car and one truck sent to procure more gas.

As a rule the regiment began the day's march about eight o'clock each morning, and the trucks were ordered to assemble between eleven and twelve o'clock, when they also started as a convoy. This enabled them to travel at a fair rate of speed and reach the billeting point and park ahead of the regiment. Often the trip for supplies was started late in the afternoon which kept the Supply Officer and his detail on the road part of the night.

The Motor Transport was made up of eight Liberty trucks from the Engineer Train, eight Macks, one Packard, and one F.W.D., secured through the Third Army from the 413th Supply Train. Motor-cycles and side-cars still remained with battalion and company headquarters, as also did the truck assigned to each company. The motor-cycles, having been given service of the hardest kind in the lines with but temporary repairs, now showed the effects, with burned-out clutches, broken forks, and cracked pistons. Solos proved of little value in these sections of muddy roads, though on good roads they were excellent means of the delivery of messages. There were many truck drivers in the regiment, and those chosen were glad of the opportunity to be assigned specific duties in connection with the work, and though the hours were sometimes long and the nature of it far from restful there was the satisfaction of knowing what was to be done each day.

The march northward for the Motor Transport was one which

THE MOTOR TRANSPORT

will recall many incidents of trial and vexation to officers and personnel; up the long, winding hills, down steep grades and sharp curves, deep cuts, narrow, high hills, and rough, muddy roads. Often a one-way road was being used for two-way traffic, despite its narrowness and a sheer drop of forty or fifty feet on one side to the river.

Just north of Gravenmacher a five-ton truck, heavily laden, skidded off the road and clung precariously to the edge of a steep slope. As it was ten o'clock at night and the trucks were without lights, two other trucks which were used to haul it back became mired. As a result of this unavoidable delay, many men slept with but one blanket that night, but rations were relayed to the next stop and no one went hungry. Next morning a Holt tractor, obtained from an artillery regiment in Gravenmacher, easily pulled the trucks back into the road, and after minor repairs had been made the line of trucks which had been held up by the block continued on its way.

New railheads for the march of occupation had been hastily established, one near Beney and one at Vigneulles. These railheads moved forward with the march, and it was the Supply Officer's task to keep informed as to their new locations and the best routes to them. The railhead at Beney had to be used longer than planned owing to the blockade of a tunnel near Conflans by the enemy, making it impossible to get supplies into what would have been the Conflans railhead. The railheads were located by the Regulating Officer ahead of the marching divisions, so that they were ready when the Supply Officers of the units arrived with their truck trains.

In the movement of an army, a ten-minute blockade will tie up a column for miles; such was the case before coming into Berncastel where the roads were jammed with motor vehicles and horse transportation from many organizations. Entering town, the roads were narrow and on the edge of a river; the trucks were edged against iron railings and some stalled in the mud, and it was not without effort that the tangle was adjusted.

Breakage was cared for by the "spare-parts section," which was kept stocked by a salvaged Liberty which was found and by salvaged motor-cycles or those abandoned along the route. At

Bous and Ozérailles cracked cylinder heads were luckily replaced by salvaged parts or by welding in the city of Luxembourg. Some of the motor-cycles were so badly used up that they had to be towed behind trucks.

With the arrival at Brohl, December 18, the Motor Transport was given a real opportunity to organize. A machine shop of A. Brohl, on Coblenzer Strasse, was taken over and used for a repair shop. It was equipped with lathes, drills, hanging cranes, and well suited to the purpose to which it was put. The shop of A. Buntgen served as a motor-cycle garage.

A Motor Transport Headquarters was established at 54 Coblenzer Strasse, with a clerk, telephone, and equipment which put it on a working basis. Repairing was carried on daily; trucks were cleaned and kept clean and oiled, and the work of transporting food, clothing, and personnel systematically carried on.

In January, a Third Army Order, Chief Engineer's Office, instructed that the M.T.C. would convoy a hundred German trucks to Brohl for the use of the Fourth Corps. They were obtained from Montebar, Herschbach, Sinzig, and Coblenz, and issued to the divisions in the Corps.

They came in convoys of about ten, but were in such bad condition that about half the number had to be towed. Many others were repaired and issued. Fourth-class trucks were salvaged at Sinzig and Coblenz and the parts used in repairing others. Many German trucks given from time to time were sent to the Motor Transport Park to be kept as junk.

The useless trucks were put to the excellent purpose of being used by the Fourth Corps Vocational School for instruction in the section of automobile mechanics. At the present time the park, which extends from the railroad tracks to Coblenzer Strasse, is the scene of great activity, with the long row of trucks dressed to line and dozens of students in denim overhauling and studying parts.

The Supply Officer had his Headquarters at Regimental Headquarters and the Supply Room was located a few doors up the street. The Fourth Corps railhead was moved to Mayen and the only Sales Commissary from which Corps troops could purchase was at Cochem, Headquarters Fourth Corps. Though Brohl was

MOTOR PARK, BROHL, WITH GERMAN TRUCKS

"A" COMPANY OFFICERS' QUARTERS AT VIÉVILLE

somewhat remote from the Corps in location, the regiment did not lack in the matter of supplies; this, as a tribute to the Supply Officers of the regiment, has always held true, from the days of Camp Devens to the A.E.F.

CHAPTER III

HEALTH AND SANITATION

Under normal conditions the health of the regiment has at all times been above the average, both as to officers and men. Back in the days of Camp Devens, Major Greene organized the Detachment Medical Department and developed it along lines which have left permanent effects. The physically unfit were transferred to such services as they were suited for, and any new ailments which developed were kept under observation. The danger of venereal disease, both at home and in regard to their particular virulence in Europe, was made the subject of many discourses and the facts set forth in such a way as to bring about a full realization of what the recruit might expect. Camp sanitation was proven to be one of the great necessities in the life of a regiment. Latrines, kitchens, sleeping space, ground adjoining the barracks, the disposal of garbage, care of food and cooking utensils, all were shown to be of such importance as to require constant attention.

At Saint-Amand the detachment and the regiment lost its veteran medical officer, who was transferred just as the regiment was leaving for the front. However, through the period in the S.O.S., the sanitary conditions in the French towns occupied by the regiment were, under his direction, greatly improved, and the experience gained by the Medical Detachment in the performance of this work was a great aid in preparing it for future duties.

Upon arriving at Toul the morning of September 11, the Medical Detachment marched with the regiment to Bautzen Barracks and was assigned to a building which was used as an infirmary, where, almost immediately, sick-call was held. The medical officers had for some time anticipated a prevalence of rash and diarrhœa, which was the result of a continued diet of canned food with no fresh meat or vegetables, a condition which also became evident, later, at the front. The train trip of several days through England and France precluded the possibility of a nor-

SECOND BATTALION HEADQUARTERS AT THIAUCOURT

mal diet and in many cases the diarrhœa was severe. The short time at the barracks was utilized, as far as was possible, in preparing for the duties which might fall to the detachment in the lines.

On the night of September 11, Lieutenant Brown and several of the medical personnel left with "F" Company for Ansauville. This group was the first of the detachment to experience the sensation of being in the Zone of Fire. The trip at night and the artillery preparations for the attack were such as to make all realize their responsibilities in the part the medical men would take in the doings of the regiment. The officers and men remained with "F" Company until it came to Flirey.

The morning of the 12th, Lieutenants Touchstone and Tannebring and ten enlisted men left with the 1st Battalion for Flirey. They arrived about noon at the cross-road and established a First Aid Station in conjunction with the infantry of the 89th Division. Here the detachment received its first introduction to the results of combat, for, arriving at the time it did, it was able to examine and administer first aid to a large number of American and German wounded; at the same time looking after the sick and wounded of the regiment. The soldiers engaged on the road worked in reliefs and at all times men of the detachment were on duty with them.

After the evacuation of the wounded of the Saint-Mihiel offensive, work went on smoothly in general, except for some cases of diarrhœa and rash, which disappeared soon after fresh meat and vegetables were obtained and a balanced diet established. The afternoon of September 14, the remaining members of the detachment came to Flirey with Regimental Headquarters, and the following day the First Aid Station already established was moved into a tent, which proved more commodious and sanitary than the first one, which was located in an old French dugout underneath a ruined cellar, sick-call being held in a space made by the removal of the bricks and mortar of a shelled building.

On the afternoon of the 14th occurred the first casualties of the regiment, of which there is an account in another chapter. Lieutenant McDonald and sixteen men were wounded as the result of a shell explosion, some so severely that they died a few days later in the hospital. Lieutenant Touchstone, who was present at the

time, administered first aid and otherwise prepared them for their journey in ambulances which were taken out of the column of traffic as it moved by. On the 15th the first cases of influenza were noted, the forerunner of what afterward, on the march of occupation, developed into a grave difficulty. Company "E" developed an epidemic of forty cases before it subsided; of these ten cases were evacuated to the hospital where not less than six died later.

On the 18th a medical officer left with the 2d Battalion for Limey, and one remained with the 1st Battalion which was working in the vicinity of the Corps axial road. Major Barron made his headquarters at Regimental Headquarters, where also one dental officer operated. Dental work was also done by Lieutenant Quinn with the 2d Battalion at Limey, where it remained until the 20th doing road work.

Leaving Seicheprey the Medical Detachment moved with the 2d Battalion to the valley north of Fey-en-Haye, known by the Americans as "Death Valley" and by the Germans as the "Stumpflager." On account of its situation, this section was subjected to enemy shell-fire, which made it necessary for all personnel to work under considerable strain; luckily, however, casualties were few. The 315th Engineers who were working in the vicinity lost three men by a shell which dropped a few feet from one of the dugouts occupied by "E" Company. At this time influenza developed in "D" and "F" Companies, and a minor ailment in a form of a rash caused by flea bites kept the detachment well occupied. At this stage body lice, or "cooties," made their appearance in "E" Company as also was the case in all the other companies within the salient. First Aid Stations were built where needed, of any material at hand; some were of elephant iron or pieces of sheet iron and at other places odds and ends of plank and bits of camouflage were used.

The 2d Battalion on October 7 moved to Mont Sec, remaining there until the 22d. In what remained of some of the old buildings hot shower baths were installed, which, though of a crude form, did much to aid the health of the battalion. On the 9th of October an accident in the form of an explosion of a Bangalore torpedo, once used by the Germans, occurred in the kitchen of "F"

STREET SCENE, BOPPARD

Company; one man was instantly killed and five others were wounded; the wounded were quickly treated and evacuated to a hospital. The 22d found the 2d Battalion again moving, this time to the Puvenelle Woods, where it was housed in some barracks used by French troops on a former occasion. It was necessary, at once, to effect sanitary improvements; this was done on a large scale, but did not prevent the increase of cootie trouble, which now had become familiar to both officers and men. Rats existed in great numbers, and, until the men became accustomed to them, caused some sleeplessness.

The 1st Battalion, in the Bois-de-Pannes, Bois-de-l'Évacuation, and Saint-Baussant, was distributed over a larger territory, and providing medical attendance constantly was somewhat of a problem. Although the men were working in the mud and rain the number reporting for sick-call was fairly small. "A" Company occupied a rustic village of cottages and bungalows built and used by a German artillery regiment. The men were very comfortable here, as also was the Medical Detachment, which used one of the cottages for an imfirmary. "C" Company lived in pup tents concealed in the brush, or in makeshift houses which served as a protection against the rain, but not the cold or dampness. The men, however, were as well satisfied as could be expected under the circumstances and the health of the company was good. "B" Company lived in some grotesque edifices which each man and his bunkie built and sited according to their own peculiarity of taste. The aggregate was known as "Mud Village."

When Regimental Headquarters was shelled at the Flirey cross-roads it moved back to Bernécourt. At this town a Medical Headquarters was established to which were sent officers and men from the companies, that they might obtain rest and be given daily treatment by a medical officer; by this means many were able to recover from a sickness which otherwise would have caused them to be evacuated to a Base Hospital and be lost to the regiment for some time, perhaps permanently. The two dental officers were enabled to arrange a working schedule here whereby a large amount of dental work could be carried on uninterruptedly. The dental officers had, up to the present time, been without equipment except for some few instruments, though

even these were used to good effect on some of the needy ones among the companies. Work of a better character at once became possible with the final arrival of the usual dental equipment.

Fortunately, when the march into Germany began after the Armistice, the regiment had acquired three ambulances, one of which was assigned to Regimental Headquarters and one to each battalion. These were used to advantage during the first days, in the cases of men who were recovering from sickness and others whose feet gave out. At Bous, in Luxembourg, the ambulances were ordered returned to the Hospital unit at a time when they were badly needed, for it was here that the serious epidemic of influenza developed. The number of cases increased rapidly until finally there were about two hundred and fifty. The 1st Battalion suffered mostly, the greater number of cases occurring in "A" Company, which luckily had been billeted in a small town near by. Every precaution was taken; the cooks and kitchen police wore muslin cloths over their faces and the food was carefully guarded. The Medical Detachment also felt the effect, Lieutenant Brown being evacuated with a very severe case. Coming at the time it did, the influenza patients could not be given the treatment which otherwise they would have received. The main effort was to keep the mild cases with the regiment and immediately evacuate the seriously ill to hospitals. In instances where the sick could not proceed with the column, they were left behind and brought up as soon as transportation could be released from the point where the regiment billeted at the end of the day's march.

Leaving Bous the regiment took up the march through Remich and crossed the Moselle at Gravenmacher; the 1st Battalion billeting that night at Oberbillig, Headquarters and the 2d Battalion going on to the next town, Wasserleisch. At Oberbillig seventy-five men in various stages of influenza were under the care of Lieutenant Touchstone; many were evacuated during the night, the remainder being cared for in the town. A number of Ford ambulances had been used to transport the sick; these were held ready to continue with the march the following morning, but because of a misunderstanding of orders they returned to their unit before morning. As no other transportation could be

DENTAL INFIRMARY, BROHL

provided at that time, a medical officer remained behind with the sick who could not be moved for two days. The best provision was made for them under the circumstances; they were quartered in a schoolhouse which was heated and the room made comfortable.

With the arrival of the regiment at Olewig, the few days there afforded opportunity for rest and a bath. From here, also, it was necessary to evacuate patients to the hospital. The sick at Oberbillig were brought up in trucks and from there on accompanied the column. At Olewig companies were taken from the regiment and distributed over sections of the railroad to do guard duty. When near Berncastel a medical officer was sent back to Hetzerath to investigate the death of Wagoner Donovan who had died at that town.

From Olewig north, the march proceeded without undue hardship, except for the rain and mist and poor conditions of the road. At Boppard the column reached the Rhine, where very excellent billets were provided for every one. The town itself was very desirable in the way of cleanliness and freedom from the congestion of the towns behind. From Boppard, through Coblenz to a point twenty-six kilometers downstream, Brohl, the march came to an end and permanent headquarters established. In the later days of the march the men became hardened to such an extent that few had dropped out and there was little foot trouble. Generally speaking, the regiment accomplished the march in very good condition.

Although Brohl was not a large town, it was beautifully situated on the left bank of the Rhine and surrounded by hills and woods. It was fairly clean and was greatly improved in this respect shortly after the regiment was located. The billets, although somewhat crowded at first, were later rearranged satisfactorily; kitchens were made sanitary, new work being done where necessary, mess halls prepared, and everything done to make conditions sanitary. At this time General Headquarters, through the Third Army and Fourth Corps, was making a campaign against venereal disease, and for at least three months the regiment was able to report no cases, and at all times up to the present the percentage of venereal complaint was negligible.

In a permanent billet such as Brohl, the detachment was enabled to arrange a suitable infirmary, dental work was resumed and a daily routine established. The companies which in turn had duty on the ponton bridge at Treis had the services of a medical officer. Inspections of the regiment were made each day by the battalion commanders and medical officers and an inspection by an officer of the Fourth Corps required that regulations be consistently followed. Much of the policing of the town was done by the Germans, who were made to clean the streets and grounds adjoining their property. Sanitary areas were allotted the companies and were placed under their supervision. Although the water in most cases in the Rhine towns is good, Lyster bags and chlorine were used; in fact, at all stations throughout the A.E.F. chlorinated water was used. The entire regiment was inoculated against typhoid for the second time, the first inoculation being at Camp Devens.

Toward the end of April, Major Barron was transferred and his duties taken up by Major Lemkowitz; Lieutenant Brown was assigned to a course of instruction at Lyons, leaving Lieutenants Touchstone, Quinn, and Tannebring of those who had left America with the regiment.

TUCQUEGNIEUX—FLORAL ARCHES

CHAPTER IV

THE TOPOGRAPHICAL OFFICE

The Topographical Office of the regiment, with Lieutenant (later Captain) Stanley W. Merrill continuing as Topographical Officer, took up its work in the A.E.F. on the 1st of August when Regimental Headquarters arrived at Drevant. A sketch map of the town, showing billets and water supplies, was made at once by the small force then in the office.

On the 5th of the month the office was moved to Orval, a small town near Saint-Amand, Mont Rond, where it was to do its chief work in the S.O.S. A large part of this work was in connection with the planning and erection of a large classification camp and a hospital camp. The former was to consist of eighty barracks as well as kitchens, mess halls, bathhouses, administration, and classification buildings, while the hospital was to include some twenty-five buildings. Both camps were to be provided with roads, a water supply, and electricity, and two large warehouses were to be erected alongside a spur track for supplies and storage facilities.

Surveys of two different sites were made for the warehouses and spur track; plans were drawn and each site staked out. One location having been accepted, work was started on the warehouses, each fifty by five hundred feet, and upon the seventeen hundred feet of track. Surveys were then made of the camp and hospital sites and of a pipe line to the sands of the Cher River. Plans were drawn of the various camp buildings and, after many revisions, about fifty camp and twelve hospital structures were staked out. At the same time the pipe line and three thousand feet of road were staked for line and grade.

The office personnel was divided into three sections, drafting, surveying, and construction. The draftsmen were busy with the multitude of plans necessary for the various special buildings. The construction section, supplied with working details by "B," "C," and "D" Companies, completed the warehouses, railroad

fill, drainage ditching, and three barracks, and had made a good start on the roads when the regiment was ordered to move and left on September 9 for Toul.

During the short stopover at Toul the office work consisted in preparing traffic route maps and other maps to be used in the long-expected drive. After two days of this the office was moved forward to Flirey.

The Topographical Office at Flirey consisted of one half of a pyramidal tent, which space was also used by the Personnel Department. A cracker box, a handful of maps, a set of colored crayons, and a blue-print frame without glass and printing-paper, composed the entire equipment excepting a watch compass carried by the Topographical Officer. Soon a stove and table were salvaged from Flirey Woods, while maps, paper, and ink came from the Corps Engineer. The drafting section then continued the preparation of maps for the use of the various companies, while the survey force set off to hunt up abandoned engineer material, and upon the completion of this task made a complete reconnaissance of the roads in the entire Fourth Corps area. At this same time the office was given charge of the instruction of a portion of Headquarters Detachment with the idea of forming a mounted detachment for reconnaissance and liaison purposes.

Then came the shelling of Flirey and the withdrawal of Headquarters to Bernécourt, where work was continued in much-improved quarters. Maps were prepared for the use of regimental organizations engaged in repairing roads, constructing artillery dumps, and second-position wiring. Plans and maps were made to accompany road and railroad reports and to facilitate the moving of Corps Headquarters from Boucq to Woinville. In addition, tracings were made of the more interesting features of French and German fortifications, even including the decorative frieze painted on the walls of the German Headquarters dugout at Mont Sec. About seventy tracings were thus made and hundreds of maps were prepared between October 1 and November 15.

By the 7th of October the survey section had covered three hundred and fifty kilometers of road in a reconnaissance, mostly on foot, and on the 31st of October a revised report was made on

REGIMENTAL HEADQUARTERS, BROHL

four hundred and twenty kilometers (two hundred and sixty miles) of roads, covering an area of five hundred and twenty square kilometers. Nearly one hundred and thirty-five kilometers (eighty-five miles) of railway, standard, meter, and narrow gauges, were reconnoitered between the 15th and 30th of October. The instruction of the mounted detachment continued with training in message writing, scouting, map-reading, and mapping with the sketching boards.

Captain Merrill left the regiment October 27, having been transferred to Second Army Headquarters, and Master Engineer Hogan was placed on detached service at the same Headquarters. About this time Sergeants First Class Alden and Lauper went to Officers' Training School. Upon the departure of Captain Merrill, Captain Arthur L. Shaw was appointed Topographical Officer. It was during his tenure of office that most of the mapping work was done in connection with the second position wiring and the removal of Corps Headquarters to Woinville. The personnel of the office changed again on the 8th of November, when Captain Shaw became Regimental Adjutant and Lieutenant John A. Root became Topographical Officer.

The office participated in the proposed attack on the Fourth Corps Front to the extent of hurriedly marking maps to show company routes and successive P.C.'s during the expected advance into German territory, but the signing of the Armistice put to an end all such activities.

During the few remaining days that Regimental Headquarters remained in Bernécourt, the Topographical Office received its long overdue engineering equipment and supplies, transits, levels, hectographs, and a complete photographic equipment.

The photographic section of the office had long been out of commission, as it had never been possible to secure a camera or photographic supplies, but now Master Engineer Pomponio with a Graflex and Privates Kimball and Smith with 3A Eastmans were sent out on excursions to all the surrounding country. From that time on, photographs were taken of all persons and places of interest to the officers and men of the regiment, and these pictures were later distributed by means of regimental albums for the officers and individually selected sets for the men.

The personnel of the office at this time was as follows:

Master Engineers, G. Hogan and Pilling, Master Engineers, Junior Grade, Pomponio, Eldridge, Graemiger, and La Croix, Sergeant First Class Alden, Sergeants Plimpton and May, Corporals Sabin, Trudeau, and Joubert, Privates King, Kimball, and Smith.

Then came the advance into Germany. At each stop which the regiment made, sketches were prepared for the following day's march. This work was generally done at night. A "progress map" was kept, upon which were recorded the stopping-places of all units of the regiment and the distances traveled by each, from the 17th of November, when the march began, until the 18th of December, when it ended with the regiment stationed in Brohl-am-Rhein. A reconnaissance was made, during the latter part of the march, of the Hunsruck Railroad from Ruwer-Paulin to Coblenz, to facilitate the guarding of this railway.

At Brohl a regular office was established and the office force considerably increased. The photographic section became very active, both in taking pictures and in making prints for the officers and men of the regiment. Fifteen hundred films were developed and sixteen thousand prints made from them. An additional twelve thousand prints were made by German photographers under the direction of the regimental photographer. Fifty albums, each containing two hundred prints, were completed for the officers, and one hundred and fifty lantern slides were made, some to illustrate papers read by the officers of the regiment in connection with officers' schools, others for future use at reunions and like gatherings.

In the early days of the occupation of Germany an attempt was made to offset the lack of daily papers by the issuance of a hectographed sheet called the "Topo Zeitung." The Topographical Officer acted as editor, with a printing staff composed of the map reproduction section, and a reporting staff consisting of Sergeant Plimpton. Corporal Cowan was illustrator and cartoonist until a change from hectograph to mimeograph made it impossible to reproduce his work.

The draftsmen kept busy turning out plans and bills of material for stables, barracks, school buildings, grandstands, a guard-

THE ROAD TO XAMMES (UNDER ENEMY OBSERVATION)

HEADQUARTERS AT BERNÉCOURT

house, Y.M.C.A. auditorium, and eight-target rifle range, and various small jobs, and in mapping Brohl and near-by localities, making about fifty tracings in all.

The map reproduction section made what blue-prints were required by the regiment and Fourth Corps School, and turned out tens of thousands of blank forms, circulars, pamphlets, etc., on the mimeograph.

The survey section surveyed for and staked out all the construction work and made a complete reconnaissance of all roads, bridges, railroads, villages, and their water supplies in the 42d Division area south of the Ahr River. Master Engineer Pilling also acted as instructor in civil engineering, first in the Regimental School and later in the Fourth Corps Vocational School.

Two and sometimes three men in the office were continually employed in the preparation of signs. Five hundred and fifty signs of various sizes and shapes were made for the regiment and the Corps.

One member of the Topographical Office yet remains to be mentioned. Corporal Percy E. Cowan and his pencil have accompanied the regiment at every move. Drevant and Saint-Amand were the subjects for many sketches, while Flirey and Mont Sec furnished ideal inspiration. Probably the best pictures of Flirey Church, Flirey Hill, and the "View of the Woëvre Plain from Mont Sec" come from his pencil and not from the camera. Certainly the best view of the stronghold of Mont Sec which the regiment possesses is that given in his sketch. In Brohl he furnished many smiles by his "Topo Zeitung" cartoons on such historical subjects as "Sick-Call on the Hike," "Headquarters Mounted Detachment," and "The Master Engineers Fall for Guard."

The above covers the main features of the work accomplished by the Topographical Office during the time the 301st Engineers was a part of the A.E.F., first as a construction organization in the S.O.S.; second as a portion of the advanced forces in the Toul Sector; and last as a member of the Army of Occupation.

CHAPTER V

BROHL

According to the terms of the Armistice, the Allied and Associated Armies were to occupy all of that portion of Germany to the west of the Rhine and the three bridgeheads at Cologne, Coblenz, and Mainz. To secure the adequate protection of these bridges, the Allies were also to take over all territory on the east bank bounded by a radius of thirty kilometers from each point, and in addition a neutral zone ten kilometers wide was to separate the occupied and German ground. (See Map of Allied and American Bridgeheads.)

The Coblenz bridgehead and corresponding back areas, as far as the Luxembourg border, were assigned to the American Expeditionary Forces, as shown in Appendix E, with Advance G.H.Q., at Trier and the Third Army Headquarters at Coblenz. At this time the Third Army was composed of the 1st, 2d, 32d, 3d, 4th, 42d, 89th, and 90th Divisions; the first three comprising the Third Corps, the second three the Fourth Corps, and the last two the Seventh Corps, with the addition of the usual Army and Corps troops. The Fourth Corps was assigned a supporting position to the west of the Rhine, with Headquarters at Cochem on the Moselle, and railhead at Mayen. The Headquarters of the 301st Engineers was established at Brohl, in the Kreis of Ahrweiler, on December 18, 1918.

It was with no little curiosity and some degree of apprehension that the regiment completed the last kilometers of its long march, for it had found that the Rhineland towns, like those at home, might be pleasant and clean, or indifferent and even in some cases disagreeable. It had been noticed, however, that the villages and towns which lay directly on the river were more apt to present a clean and orderly appearance, since they had for years catered to the tourist, and were therefore more in touch with the outside world's standards of sanitation and living. While primarily an industrial town, such proved to be the case of Brohl, and al-

GERMAN PONTON BRIDGE ACROSS RHINE AT BROHL — GERMAN ARTILLERY CROSSING

though it was apparent from the first glimpse that the regiment would tax the billeting facilities to the utmost, the home of the regiment for the indefinite months ahead proved better than was anticipated.

The town of Brohl stretches along the west bank of the Rhine on the Coblenz–Cologne highway at the junction of the Brohl River. The almost perpendicular sides of the hills to the north and south slope almost to the river-bank, elongating the plan of the town to a thin line, excepting where the Brohl Valley allows it to extend back three or four hundred yards between the hills. Under normal conditions the civil population is rated at about seven hundred people, but, like all other German towns, the generous supply of *Gasthausen* and *Wirtschaften* provides a greater and more flexible billeting space than would be available in an American village of the same population. Unlike the country both farther up and down the Rhine, the river at this point is comparable with the picturesque regions of Saint-Goar and Boppard, for here the level, delta-like stretches that surround Coblenz are again the hills and vineyards which have become so famous for their beauty. While not unpleasing, the town itself did not quite live up to the standards of the natural setting. The brick-paved streets are narrow and winding, and with few exceptions the two-story brick buildings set too close to permit a sidewalk, but it has not the quaintness which the old German architecture has given to some of the older and more historic villages. This, however, becomes an asset rather than a loss, in so far as living conditions are concerned, for adequate running water and sewerage, together with gas and electricity, are rather more to be desired by troops than the discomforts which almost invariably accompany the picturesque. On the edge of the town are several very pleasant residences, and fairly well up on the north slope of the Brohl Valley is the rather imposing old castle, Schloss Brohleck, built in 1089, which is now being used as a boys' private school and which adds greatly to the appearance of the setting as a whole.

A small gas-plant provides the houses and streets with light and some heat, though for the most part the latter is dependent upon the usual German type of coal stove. The water supply is

derived from a well about ten meters deep, from which it is pumped by gas-engine units directly to the mains. In peace-times there were several small but prosperous industries, including a cement plant, paper factory, bottling works, with several machine shops and sawmills, but for the greater part these were either idle or only in part operation at the time of the American occupation. Like all other Rhine towns, the absolute cessation of the tourist trade had made serious inroads on the usual prosperity.

The main line of the Cologne–Coblenz–Mainz railroad is supplemented at Brohl by a privately owned narrow-gauge branch, running up the Brohl Valley, known as the Brohlthal Eisenbahn, and serving the trass and tufa industries with which this valley abounds. The valley itself is attractive and, on account of its geological history, of unusual interest to those familiar with its formations. The rock varies from a fine ash and spongy pumice to dense basalt, the ash being extensively mined to make a neutral cement, together with large quantities of trass which furnishes a large proportion of the building material for this district. Several mineral springs rise in this region which were known and utilized by the Romans and whose waters are now bottled and extensively used. In a similar valley, about fifteen kilos to the north are the famous Apollinaris Springs, whose water is so well known to the United States.

The regiment was preceded into Brohl by Company "F," which having been relieved of its guard duty on the railroad, arrived by train on December 17, 1918. They were followed the next day by Companies "A," "B," and "D," with the Engineer Train, and the process of billeting and the adjustment of the regiment to its new home was immediately commenced. Company "C" remained on the ponton bridge at Treis and Company "E" was still at Morbach guarding the railroad.

The task of billeting was not an easy one, for instead of merely resting for the night, this was to become the permanent station, and the comfort and efficiency of the organization depended much upon the arrangement of the different units. Such information as could be given by the town officials was incomplete and so inaccurate as to be almost useless; it was therefore necessary to

GERMAN AMMUNITION CHAMBERS, THIAUCOURT

start at once with a house-to-house canvass. On the whole the population were not unfriendly and no great trouble was experienced in making the adjustments during the next few days, but the majority of the men were forced to sleep on the floor until the time when the supplies and material necessary to build bunks could be secured. Company "A" was placed in the north central part, Company "B" and Headquarters in the center, Company "D" and the Train in the south central part, and "F" Company in the extreme north. The wheel transportation was parked along the flats between the main highway and the river, and the animals were distributed in various stables and sheds throughout the town.

CHAPTER VI

WORK OF THE REGIMENT

THE physical and mental condition of the regiment, as it settled down into its routine duty as a unit in the Army of Occupation, was entirely different from that of any other period or phase in its history. The discipline, the training, and experience of the long march could not help but leave a distinct mark, unlike that acquired by infantry drill or actual campaign, but nevertheless of a distinguishing military character and value. However, it had been three months since any form of a close-order drill had been possible, and while the regiment was surprisingly efficient as a military organization, the need of infantry drill was apparent. On December 23, training was begun on regular weekly schedules which have been continued up to the present. The first schedule comprised physical drill, infantry drill (close and extended order), small-arms firing manual, engineer drill, practice marches, and athletic games. These schedules were varied from week to week and made to include manual of interior guard duty, bayonet exercise, gas drills, pack-rolling, target practice, and terrain exercises. Use of the A.E.F., Provisional I.D.R., was begun about the first of February and Officers' and N.C.O.s' schools were conducted in this subject and written examinations given. During the month of March a half-hour daily close-order drill for officers was conducted. From December 23 until the first of May (present writing), the following number of hours were devoted to the various subjects:

Physical drill	56	Engineer drill	79½
Close order	72	Terrain exercises	36
Extended order	26½	Gas-mask drill and inspection	7
S.A.F.M	9	Instruction in pack-rolling	3
M.I.G.D	8	Athletic games	65
Bayonet	2	Officers' close-order drill	9½
Practice marches	61		

A few typical schedules are given in the Appendix. Of course these schedules were frequently interfered with by necessary

"C" COMPANY HEADQUARTERS AT VIÉVILLE

engineer work, but were followed as closely as possible. A strict interior guard, consisting of six double entry posts, was also put into effect.

During the months of January and February a number of rather extensive terrain exercises were conducted in the neighborhood of Neider-Lutzingen. One of the main features of these exercises was to teach the formations and tactics of the new extended order. Generally practically a whole day was spent in any one exercise. Various situations were assumed, defensive works (machine-gun emplacements, etc.) being generally simulated by the use of flags. In some cases engineering problems were introduced.

The target practice mentioned above consisted in firing practice courses in slow and rapid firing. Captain Warner was appointed Range Officer. As the range was small (eight targets) progress was slow, about two months, firing every day, being required to put the regiment through the course. The slow fire consisted in: 10 shots prone, over a low parapet at 100 yards; 10 shots standing, from a trench at 200 yards; and 10 shots standing, from a trench 300 yards. The target used was a standard "A" target — 8″ bull's-eye. The possible score was 150. A competition was inaugurated for his slow fire, the following prizes being offered:

For Company having the highest score — Cup
Individual prizes (enlisted men) highest total score 3 ranges:

1st	Cigarette case
2d	Bill-fold
3d	Match-holder
4th	Silver pencil
5th	Pocket-knife

For rapid fire, as many shots as possible within sixty seconds were allowed at each range. A head target was used at one hundred yards, and a head and shoulder silhouette at two hundred and three hundred yards. The firing positions at each range were the same as for slow fire.

During the month of January a series of corps maneuvers by divisions of the Fourth Corps were held, at which Colonel Whipple, Major Dean, Major Pease, Captain Waldron, and Captain

Gallagher (all of the 301st Engineers) acted as umpires. The regiment as a whole did not participate. The operations were merely outlined: that is, a comparatively small number of men represented each division, regiment, and company. Three problems were worked out, each being based on possible corps operations in case hostilities should be resumed. One problem was concerned with the operations which would be carried out immediately upon the opening of hostilities. A second dealt with the assumption that the Germans had forced a wedge into our lines as far as Dungenheim (near Mayen). A third assumed that the Third Corps had made a successful advance and was to be supported by the Fourth Corps. Although not participated in by this regiment these maneuvers are of interest because of the magnitude.

After arriving in Brohl a great deal of attention was paid to the care of animals and wheel transportation. Most of these animals and wheel transportation were in very poor condition when received just prior to starting on the march into Germany. Needless to say, this long march did not improve conditions. However, the pains taken to improve matters after arriving in Brohl soon produced results. On February 26 there was held at Cochem a corps show open to all corps troops of the Fourth Corps, at which this regiment won the following prizes:

1st prize for two-horse water cart
2d prize for single-horse medical cart
3d prize for four-line mule hitch on escort wagon

On March 26 a regimental show was held at which the following prizes were won by various units of the regiment:

Four-line mule hitch — escort wagon:
1st prize, Company "D"
2d prize, Engineer Train

Four-line horse hitch — limber and caisson:
1st prize, Company "D"
2d prize, Company "F"

Two-horse water cart:
1st prize, Company "D"
2d prize, Company "E"

From Water-Color by Woodson

BROHL — STREET SCENE

Cavalry horses:
1st prize, Headquarters Detachment
2d prize, Headquarters Detachment
3d prize, Company "D"

Jumping class:
1st prize, Company "F"
2d prize, Headquarters Detachment

Slow mule race:
1st prize, Company "D"
2d prize, Company "C"

Fast mule race:
1st prize, Company "E"
2d prize, Company "D"
3d prize, Company "D"

On April 3 a show was held at Andernach, open to all troops of the Fourth Corps, at which the 301st Engineers won the following prizes:

3d prize — Slow mule race, Company "C"
4th prize — Single-horse medical cart, Company "D"
4th prize — Slow mule race, Company "D"

The engineering work undertaken in Brohl was for the most part the odd jobs incident to garrison duty with the exception of the target range and "delouser."

The need of a delouser was so urgent that work was started on December 22, since there were no facilities for cleanliness on the march, and the billets in some cases were vacated by the returning troop of Germans only a day or two before occupancy by our own. The plan for accomplishing this was necessarily limited by the resources of the town, and after a survey it was decided to use the railroad power house, diagonally opposite the Regimental Headquarters. It was impractical to subject the clothes to live steam of fifty pounds pressure, and so dry heat was employed as the only alternative, since it was necessary to obtain about 200° F. To accomplish this a double-walled, sawdust insulated box, $3\frac{1}{2} \times 5 \times 9$ feet, was built, with a double set of steam coils on the bottom and a sliding rack on the top. An addition with six

showers was built, and the equipment was found suitable to care for between twenty and thirty men an hour. The baths themselves were particularly useful during the entire time the regiment remained in Brohl.

The crowded condition of this village made it almost imperative that some additional billeting space be found and a requisition for two "knock-down" barracks and two stables, both 30 x 100 feet, was entered with the Chief Engineer. This type of barrack was used extensively throughout the Third Army, as they were manufactured by different German concerns in large quantities during the war and there was consequently a large supply available at all times. Two to three days was found sufficient to erect a building 30 x 10 meters, since the trusses came assembled and the walls and roof in sections of about two meters width.

On January 10, 1919, "E" Company, with Captain Kelly in command, moved to Coblenz to relieve the 37th Engineers as Army Engineers, Third Army. This assignment detached "E" Company from the regiment and brought it directly under the command of the Chief Engineer.

The company was divided into five sections, each in charge of an officer as follows:

(a) General Construction Section Office.....Lieutenant Cherry
(b) Shops (Carpenter, Blacksmith, and Machine) .Lieutenant Brady
(c) Engineer Dépôt.....Lieutenant Bowler
(d) General Construction.....Lieutenant Delano
(e) Electrical Construction.....Lieutenant Tatnall

With this organization the company efficiently handled the varied work assigned to it, but by the first of March the volume had assumed such proportions that it was deemed advisable to add "A" Company, which arrived in Coblenz March 11.

"A" Company immediately took over the General Construction Sub-Section and divided the work into (1) work done by troops, (2) work done by German contract, German military and civil authorities. One platoon was detached and sent to Remagen, where it built and opened an Engineer Dump to receive property being turned in by the various divisions scheduled for the United States.

THE ENGINEER TRAIN AT BROHL

A résumé of the work accomplished by the various departments shows the amount and extent of this work.

The Shop Sub-Section completed a total of ninety-five jobs, including a large amount of cabinet work and over three hundred painted signs.

The Electrical Sub-Section maintained a Trouble Department at Army Headquarters and G-2-C. The electrical construction work totaled sixty-five jobs, including the installation of sixteen hundred lights, four 5 kw. motor generators, one 17 kw. motor generator, and three 25 kw. motor generators.

The General Construction Sub-Section handled a total of one hundred and thirty jobs, eighty-two of which were completed by troops and forty-eight by German labor. The work included road repair, construction of barracks, an excellent stage in the Fests Halle, a leave camp center of eleven buildings, and many other interesting jobs.

The two companies continued as Army troops until April 29, when they were relieved at the request of the Corps Engineer and rejoined the regiment. (See Appendix F for letter of appreciation from the Chief Engineer.)

From the date of the regiment's arrival in Germany until May 19 (?), the 301st Engineers had maintained a company at the ponton bridge across the Moselle between Carden and Treis, Companies "C," "A," "D," and "F" spending from three to eight weeks on the work. The river at this point is about seven hundred feet wide, the current variable between eight and thirteen kilometers per hour, and the level rising and falling with great rapidity. The equipment was originally privately owned, but taken over by the German Army during the war, from whose hands it had passed into American control with the Armistice. The boats were steel, and the balk laid by the reinforced system and covered with two layers of chess. Orginally it was planned to take seven- or eight-ton traffic, but the poor quality of the chess and the rapid current made it necessary to limit the traffic to light trucks, ambulances, and touring-cars.

While there was no great amount of river traffic, it was necessary to allow the passage of river steamers and barges. This was accomplished by making the four center boats into an indepen-

dent raft which could be disengaged by the removal of extra balk, and floated downstream until it was sufficiently free to enable it to be pulled aside. Under favorable circumstances this could be done in fifteen to twenty minutes, and the whole operation seldom delayed traffic more than fifty minutes.

During the winter and spring periods the greatest difficulties were to keep the approaches clear and the rise and fall often necessitated the removal or addition of boats twice in one night. The cold, swift water added the element of danger to the work, and while several men fell overboard there were no serious results.

The bridge was an important link in the Trier–Cochem–Coblenz road and saved about three hours of difficult and hilly travel which would have otherwise been necessary. With the exception of a few days, when the large quantities of ice coming downstream so endangered the whole that it was taken down, the bridge was never closed for more than a few hours.

Early in March it became known that it was the intention of the Commander-in-Chief to review the divisions and units of the Army of Occupation, the date to be the 18th. Great care was taken to have the men of the regiment prepared for this event; uniforms were replaced or cleaned and there were one or two rehearsals in the formation to be used.

At 4.55 A.M., the 18th, the entire regiment, with the exception of a few left on guard, were transported by truck to a large plain near Kaisersesch. The day was unfavorable, as it was in the case of the 42d Division on our left, which had been reviewed a few days before. All the Corps troops were assembled in columns of masses, presenting a most impressive spectacle. The snow-covered ground and the wind kept the men uncomfortable, but the wait was not so long as upon other occasions. "A" and "E" Companies, being stationed at Coblenz, were reviewed with the Third Army Troops two days before and were not with the regiment.

At the approach of General Pershing, "General's Call" was blown and at the command of General Wells, Chief of Staff, all units presented arms, after which the inspection began. Front ranks about-faced, and the General passed through questioning

PONTON BRIDGE BETWEEN CARDEN AND TREIS

and commenting. The inspection completed, the troops closed in about a small grandstand and listened to the General's address, returning by truck to Brohl, "B" Company resuming its duties on the ponton bridge at Treis.

CHAPTER VII

POLICE AND ROUTINE DUTIES OF OCCUPATION

THROUGHOUT the long march from France to the Rhineland Provinces it had been a source of great interest for the entire regiment to watch the ever-changing attitude of the civilian population through whose cities and villages the Army of Occupation passed. The sincerity and joy of the welcome accorded the troops in Northern France could not be questioned. After four years of German occupation their stories verified practically all that the outside world had heard and had been almost forced to believe. As the march progressed through Lorraine, Luxembourg, the border towns, and into the real Germany, the true sentiment of the people, shaped by forty years of propaganda and colonization, became complex and difficult to judge. So conflicting had been the different experiences that the arrival in Brohl found the regiment with mixed feelings and a growing wonder as to just what the term "Army of Occupation" meant, and as to what duties it would involve. However, it was apparent that the German civilians were in reality "marking time" and awaiting developments, being fully at sea in regard to the Allied future policy. They unquestionably feared an "iron hand," patterned after their own precedent in the previous four years, and each individual tended to follow his own course of action, either complete aloofness, open resentment, or else partial or whole-hearted attempts to fraternize. The General Orders against fraternization, issued soon after the regiment's arrival, together with the German instinctive habit of living under regulation, soon settled all questions of this nature and reduced the matter of police to those common in any town or city. It was soon evident to the Germans that the Allied policy was one of fairness, and the contrast between the order in the occupied areas and the unhappy conditions of their country across the Rhine aided to smooth out such minor difficulties as arose.

Only one serious disturbance occurred during the regiment's station in Brohl, and that in the neighboring town of Neider-

THE RHINE—BROHL ON LEFT

Lutzingen. On April 5, the Officer of the Day received a message in the early morning that a fight had taken place between American troops and civilians in the above town, which, though not occupied by troops, was often visited by this and other regiments. Upon questioning, it developed that four men of the 301st and fifteen men from the 3d Division had visited several wine-shops during the evening, and that there had been an argument over the sale of wine to civilians and refused to Americans. The men of the 3d Division were armed and those of the 301st Engineers unarmed. The four men of the 301st left the town about nine o'clock alone for Brohl over the road along the top of the plateau. Shortly after leaving the outskirts they were struck with a shower of stones and then set upon by about fifty German civilians. A free-for-all fight developed in which the men became separated, but all reached Brohl except one, who was so badly beaten that he was not able to walk for some time. He was found on his way back several hours later by a searching party.

Under the orders of the Commanding Officer two platoons were sent out in the afternoon with instructions to surround the town in the evening and arrest all civilians concerned in the attack. Upon questioning, the Burgomaster denied all knowledge of the affair, and claimed that it must have been caused by outsiders. He was taken to the town square and all men rounded up for questioning, all of whom admitted hearing of the fight, but disclaimed any knowledge of the participants. About two hundred and forty men were questioned, and finally seven were placed under arrest after either admitting being present or else apparently possessed with information which they would not tell.

About 10.30 two men made a break from the village and failed to halt upon the command of the guard. This was repeated three times before firing, upon which one man dropped and the other ran back into the town. The man was hit in such a way as to cut the femoral artery, and, in spite of all possible aid from our Medical Detachment, died almost immediately. With this one exception, all other dealings with German offenders were those of petty nature, such as theft of small amounts of food or supplies, and were punished either by fine, or imprisonment in the regimental guardhouse for short periods.

CHAPTER VIII

SCHOOLS

SHORTLY after the arrival of the regiment in Brohl, the Regimental Schools were organized for those men of the regiment who desired to advance their educational qualifications before their return to the United States. Chaplain Royal A. Simmonds was given charge of the organization and maintenance of the various courses, and opened an office in the Hotel Mittler, where Corporal Callahan, of "A" Company, a former high-school principal, handled the details of the administration.

From the start the men took great interest in the courses which were offered, among which were courses in algebra and geometry, elementary and advanced, arithmetic, American history, electrical and mechanical engineering, civil engineering, banking and accounting, freight transportation, Spanish, and music, both vocal and piano. The school hours were during the morning from nine-thirty until eleven-thirty, and all menwho had enrolled were excused from all details during that time, guard duty being the only exception. The instructors were taken from the qualified officers and men of the regiment, and the interest of their classes proved a high testimonial to their ability. Some of the students desired to secure credit in subjects which they had taken, and expected to resume in the near future, in night school or college, while others wished to gain vocational knowledge which would aid them in their trades.

The schools rapidly grew in size and vitality, and early in March it was thought that the Chaplain had had too much thrust upon his shoulders, so Captain Waldron was named to assume the directorship in his stead. The first thing to be done was to install a new organization to care for the voluminous increase in paper work and other details of an administrative character. A new office was found, which possessed two distinct advantages in that it was but a hundred yards from Regimental Headquarters, and, even more important, that it had a telephone which

EVENING PARADE AT BROHL

linked the office with the various classrooms and instructors. Lieutenant Lawson was appointed Assistant School Officer to help Captain Waldron with the administration, and Sergeant First Class Maloney of "F" Company, Corporal Callahan of "A" Company, and Corporal Miles of "C" Company, attended to the many details.

By far the most popular course was that in automobile repairing, which boasted some fifty members. Privates Cecchini and Maroney were the instructors, the former teaching the theory of the construction, maintenance, and repair, and the latter the practice.

Toward the latter part of the month difficulties were encountered through the transfer of two of the companies from Brohl to other duties, one of them going to Treis for work on the ponton bridge across the Moselle River and the other going to Coblenz for work on construction jobs of the Third Army. Due partly to the consequent decreased number of men in Brohl, and partly to the increased number of details and construction jobs which came with the advance of spring and warm weather, attendance at the schools received hard blows until some of the classes could muster no one but the instructor. So one by one the courses were closed and certificates of proficiency issued, until at the end of March only a few of the larger and most popular courses remained.

However, the success of the regiment in the organization of the Regimental Schools had attracted the attention of the Corps authorities, and late in March word was received that a Vocational School for men from the entire corps would be organized in Brohl and preparations would be made immediately for three hundred students. Thirty-five of these were due to arrive on the 1st of April, which date was only seven days distant from the receipt of the orders.

Plans were immediately made for their reception. Five German collapsible barracks were ordered and obtained from the lumber yard in Coblenz. Just six days later all five were in the air and one was covered and roofed ready for the first contingent of troops. These proved to be men for the carpentry class, and they were immediately given some practical instruction on the job of completing the other four buildings.

Meanwhile an organization was being provided for the administration of the new school. Lieutenant-Colonel Whipple was named Commandant, with Captain Waldron as Executive Officer and Lieutenant Lawson as Adjutant. Later Lieutenant Rugen was placed on special duty with the school and appointed Tactical Officer. Sergeant Maloney assumed the duties of First Sergeant and Corporal Miles those of Company Clerk. During the first week Captain Roberts, of the 413th Motor Supply Train, was detailed as officer in charge of the course in automobile repair, for which there were two hundred men already enrolled.

On April 7 the remainder of the students arrived and were quickly absorbed into the organization. Three of the barracks were used as sleeping-quarters for the men, one was fitted up for classrooms and office, and the fifth contained the mess hall and kitchen, which soon proved to be a model of efficiency under the direction of Sergeant Covo of "F" Company, as Mess Sergeant.

Instruction was offered in five subjects: automobile repair, carpentry, road construction, land survey, and barbering. However, due to the unpopularity of the road construction course, this was soon merged with the course in land survey, and the students affected expressed themselves as well satisfied with the change. Captain Roberts acquired forty German trucks from the regiment for the use of his class in automobile repair, and the student mechanics soon had them stripped to the bare chassis frame in an effort to find out what makes the wheels go 'round. The carpentry class was given practical instruction on building jobs in the vicinity, and it was also provided with a shop in which it could tinker to its heart's content. The road construction and the land survey classes, which had been consolidated, were given alternate periods of lectures and trips to distinctive examples of their line of work in the vicinity. And last, but not least, the barbering class, numbering seven students, learned their trade at the expense of the patient small German boys of the town.

But in the middle of May word was received from Corps Headquarters that the Fourth Corps would soon pass out of existence, and preparations were begun at once to break up the school, which, of course, contained corps troops who were to return with

MOUNTED SECTION, HEADQUARTERS DETACHMENT, BROHL

their organizations to the States at once, and to whom the pursuit of knowledge consequently contained no more of interest. The men from the 51st Pioneers were the first to be returned, and they were soon followed by the students from the other organizations of the corps. On Thursday, May 22, the school was officially discontinued by orders from Regimental Headquarters, which relieved the school personnel from further duty and returned them to their respective companies within the regiment; and the 301st Engineers turned its attention from education to the more welcome task of preparing for the last long leg of its travels — the trip toward HOME.

CHAPTER IX

RECREATION AND AMUSEMENTS

During the period at Camp Devens, the abrupt change from civilian life to the military and the hard routine of training had been made easier and softened by the help of the various "welfare" organizations, aided by such Army institutions as the Liberty Theater. Week-end passes home, together with visits to camp from friends and relatives, served to make the changed condition of life gradual and as free as possible from the two enemies of all soldiers, homesickness and lonesomeness.

The strangeness of a foreign country, the excitement of the preparations for actual work at the front, filled the minds and hours of the training period at Saint-Amand. From the arrival at Toul until the regiment reached Brohl, it was surrounded by such a bewildering succession of events and was so busy with the work at hand that every other thought was subordinated to the immediate present.

With the completion of the march and resumption of semi-garrison duties, the whole Third Army was brought to face a new problem, under new conditions and of primary importance. In spite of all technical arguments, the American soldier believed that the war was over, that he had fulfilled his contract, and was entitled to go home at once. Every one wanted to go first, for the novelty, the excitement, and interest were gone, leaving nothing to take their places. This was at once recognized by G.H.Q., and immediate steps were taken to relieve the situation so far as possible by adjusting schedules to allow for a very comprehensive athletic programme. However, it was primarily a problem for each individual unit to work out for itself, relying as much as possible upon the aid of the welfare organizations.

Christmas came almost with the regiment's arrival, and work upon a celebration for that day was started at once. Fortunately, the packages (9 x 4 x 3) had arrived from home, with very few exceptions, which more than anything else helped to give the day

something out of the ordinary. Several days before, a large tree was erected on the drill field next to the river and a line run from the power house to supply the colored lights. At one end of the field a small stage was put up to provide a proper setting for five volunteers acting as Santa Claus, as well as for a quartet of young ladies from the hospital in Coblenz. Each company placed a table on the grounds, and every man was given a very generous supply of candy and tobacco, while the band led in the singing of popular and Christmas songs.

On December 21 the regiment requisitioned a dance-hall in the center of the village, which was turned over to the Chaplain as a recreation hall. While small, the room was filled every evening, although the sole equipment consisted of only writing-tables, stationery, a phonograph, and a piano. By borrowing from the regimental fund, it was possible to start a small canteen in an adjoining room, which was soon self-supporting. The soldier shows, which later proved so great a success, were not yet organized in sufficient numbers to permit more than one or two a week, which were occasionally supplemented by professional talent from the Y.M.C.A. in Coblenz. However, that same organization provided the regiment with an excellent moving-picture machine, which was in continuous service until the regiment's departure and proved almost invaluable in this class of work. In addition, a Y.M.C.A. secretary was sent and later, upon his release, two young ladies. Through their initiative a very home-like and attractive wet canteen was established.

The cramped quarters of "Welfare Hall" had placed a very definite restriction on the work until the last of April, when the regiment was given an $18,000 Y.M.C.A. building by the Coblenz Office. This was brought to Brohl and set up on the river-bank, the moving-picture machine installed, and entertainments given at which practically the entire regiment could be present at one time.

The fact that the regiment were corps troops rather than divisional, and in addition were separated from Corps Headquarters, delayed recognition by the different welfare organizations, as the needs of the divisional units taxed their resources to the utmost. However, when supplies became more abundant, the response

was most generous and the result upon the regiment's morale highly satisfactory.

In spite of an exceptionably open winter, it was impossible to do a great deal with organized athletics during January and February. However, the companies built up individual soccer teams, which played from time to time as the weather permitted, but without organizing a definite league. It was also possible to play some few games of football. The boxers and wrestlers made several trips to outside towns where they gave the regiment an excellent reputation, and placed several men on the corps teams.

Universal interest in athletics was not possible, however, until April 15, when the baseball season was opened by both the corps and regimental leagues. Several players were placed on the corps team, but the real interest centered on the regimental league, where each company was represented. At times as many as four games a day were played, and in May the companies decided to place their teams in uniform, which enabled a much better class of playing. The married and single officers played several times to large galleries of enlisted men, who availed themselves delightedly of a "fan's" right of criticism.

On two occasions an English soccer team came from Cologne, which was the only attempt at Inter-Allied sports owing to the regiment's departure before more elaborate plans could be made.

It is interesting to note that in the future such American tourists as may choose to visit the Rhineland area occupied by the Third Army will probably be somewhat astonished to hear "Young Germany" handle American baseball slang in an exceptionably proficient manner.

From time to time while at Brohl old acquaintanceships of the regiment were renewed and officers and men, formerly members, sent news of their whereabouts. Just before the march to the Rhine, Major Lawton spent a short time at Vigneulles, having been stationed there in connection with road work for the action of November 10 and 11.

Colonel Downing visited the Staff at Alkburg and made a short tour of the occupied territory. He took a keen satisfaction in seeing the familiar faces of the men and officers whom, over a year before, he had commanded.

BRIDGE ACROSS THE MOSELLE AT GREVENMACHER

Major Porter, having finished his course at the Staff College at Langres and returned from Nice, where he had been recovering from an illness, stayed over a few days before going to a port of embarkation and then home.

Captains Devlin and Merrill, who had been transferred at their own requests to the Second Army when the regiment was at Bernécourt, occasionally sent word of their well-being. Captain Devlin commanded a ponton train and later a construction unit. Lieutenants Deacon, Mapes, and Patterson, under exceptional circumstances, were able to resign and return to the United States.

Captain Benedict, who left the regiment at Devens to go to Washington, later joining the 56th Engineers with which he served in the A.E.F., rejoined his old unit on the Rhine. Major Pease, owing to the death of his father, returned to the United States as soon as could be arranged.

Colonel Whipple arranged the transfer of Major Greene to the Third Army, from which, it was understood, the transfer to the regiment could be easily effected, but orders moving the regiment did not permit of sufficient time for the completion of the transfer. The acquisition of Lieutenant Manch as bandmaster gave the band new impetus and caused visible evidence of improvement.

CHAPTER X

TO SAINT-NAZAIRE AND BOSTON

THE sixth month on the Rhine; there remained by this time only two regiments of National Army men in the Army of Occupation, our own and the 308th Engineers, Corps Engineers of the Third Corps. Though the desire to go home was as keen as ever, there were some compensating features in remaining on the Rhine. The weather was ideal; the sun's early rays first grazed the ridges surrounding the bowl in which the town was built and descended upon the gray-green waters of the great river, outlining the cliffs on the opposite shore. The spring foliage changed the brown winter landscape to green, the blossoms of the magnolia and horse-chestnut filling the air with their fragrance. In the yards of some of the humblest homes were large masses of lilac. From the ancient esplanade of Castle Brohleck was visible the greater part of the town, with the river and the cliffs of the Rheinbrohl side in the background — a scene typical of the beautiful towns of the Rhine banks.

In such weather baseball was at its best and the field on the river claimed a large daily attendance. The large new Y.M.C.A. auditorium afforded opportunity for the presentation of really good shows and movies. Short trips on foot would take those who so desired to the historic grounds of old Rheineck Castle and the old monastery on the edge of the beautiful volcanic lake known as "Laacher See." Daily association with the townspeople, even though they were an enemy people and the provisions against "fraternization" notwithstanding, could not but result in friendly relations, and in all fairness it cannot but be said that the treatment accorded the regiment at the hands of the people of Brohl was excellent — whether with ulterior motive or not.

A telephone message from the Corps one morning advised that orders for corps troops to move had been received, which message was later confirmed by the actual orders. At once the tedious process of turning in equipment was commenced and the

ALKBURG — BILLET OF REGIMENTAL STAFF

carrying-on of the various inspections required, prior to embarkation.

The Fourth Corps of the Third Army was ordered to entrain for Saint-Nazaire the 26th of May. It is impossible to give the exact date upon which the definite orders were received, as they were preceded by a large amount of supplementary information, indicating that the time was not far away. It was about two weeks, however, from the first definite orders until the entrainment.

The regiment was to travel as an infantry organization and all engineer equipment was to be turned in to the Chief Engineer. It was at first ordered that animals be sent to a small town near Trier, and preparations were made for the three-day trip necessary to reach that point. The column was lined up ready to start when, by very good fortune, a Major of the Remount Dépôt passed and offered to accept them at Sinzig, only a few kilometers down the river. Company and regimental council books were inspected by the Corps Officers, and the Personnel and Supply Offices became places of great activity, owing to the large amount of last-minute paper work. Proper affidavits were made out and clearance papers received in ample time, so that by the evening of the 25th the regiment could have moved out with an hour's notice. A lieutenant and five enlisted men were left behind to act as Town Major and adjust such claims as might be presented by the civilian population during the next two days, after which they were to proceed directly to Saint-Nazaire.

The regiment was allotted one whole and one half train, each consisting of twenty-five American box cars, two kitchen cars, a baggage car, an officers' coach and officers' box car. About forty-two men to the car was the usual distribution, which was not excessive, and, owing to the bedding-sack which they were allowed, quite comfortable in comparison to previous movements. The kitchen cars, serving three hot meals a day, were other decided factors in making the trip easier which had been lacking before.

Promptly at 6.43 the first train began to move and the long journey to home and civil life began. The route lay along the Moselle River as far as Metz and then west to Verdun. Here a stop of over an hour was made to take on water, which allowed an

excellent glimpse of the town and surrounding terrain. From here the train turned south, and upon arriving at one shell-battered town, the familiar sign "Saint-Mihiel" was again seen. While for the most part the train was not routed on the trunk lines, a fairly direct line was taken through Troyes, Bourges, Tours, Angers, Nantes, to Saint-Nazaire, which was reached at 3 A.M., on the morning of May 30. From Metz on, the train had been operated and dispatched by American personnel, driven by an American locomotive with a Yankee crew; delays were infrequent and the whole trip one which cast credit upon the organization responsible for its speed and safety. It was still dark with a slight drizzle when the regiment detrained about 4 A.M. and, after loading the baggage in trucks, was formed in battalions and marched to Camp No. 2. This camp was situated on high ground, about two miles from the center of the town, built entirely of standard barracks, and in no way gave evidence to support some of the adverse rumors of embarkation centers which were current during the winter. Upon arrival, the men and officers were assigned billets with an opportunity to wash and make the necessary adjustments after the long train trip. Immediately after breakfast a physical examination was held and the regiment then passed over to Camp No. 1, about a half-mile distant. The entrance to this camp was through a large delouser, and by noon the entire regiment was again in billets, awaiting its final orders and examination.

While a large amount of paper work now fell to the regimental and personnel adjutants, but one test inspection for equipment was required of the men. Colonel Whipple was first given to understand the regiment would sail on June 9, since it was expected that on that date a steamer would be available which could take the entire regiment complete and land in Boston. Owing to the limited number of first-class passages available on the majority of boats, it had been the usual rule in the past to detach all but a minimum number of officers from homeward-bound organizations and send them through Brest as casuals. With this in mind, the above arrangement was very acceptable to all, for, in spite of the slight delay until the 9th, it meant that the 301st Engineers would be complete upon arrival at Devens. On June 4, however,

THE BAND AT BROHL

orders were received to embark on the Calamares which sailed for New York the next day. As the complete personnel was included, this arrangement was nearly as satisfactory as the first, the only disagreeable feature being the trip from New York to Devens, which would now be necessary. The first company left the camp at 5 A.M. and marched directly to the pier. The men were checked on board and by 6.30 the entire 301st Engineers, 301st Sanitary Train, the Headquarters 81st Brigade, and several small casual companies were on board.

The Calamares was a comparatively new boat which had been operated by the United Fruit Company between New York and Havana previous to the war. She was now completely fitted as a troopship, the hold being filled with metal bunks in tiers of five. In addition, these bunks had been placed along the promenade deck and were allotted to the junior officers and casuals. Way was made about 8 A.M. and, after the long process of being warped through the lock at the harbor entrance, the 301st Engineers at last closed its overseas history and was "homeward bound." The regimental band bade farewell to France by playing the "Marseillaise," causing the long line of French citizens ranged along the dock rails to bare their heads in respect and heartily applaud as the vessel worked its way out to sea. The ship was known to be a fast boat, and it was expected that nine days would complete the trip. However, on June 10, orders were received by wireless to make Boston, since by far the majority of troops were scheduled for Camp Devens. Since this not only shortened the crossing, but also eliminated the trip from New York to camp, it was most welcome news.

An important incident of the trip was the formation of a permanent association of the regiment. While on the Rhine, the Regimental Commander determined the sentiment of men and officers regarding such a society, which was unanimously favorable. The initial steps for its making were taken on shipboard. The first meeting was held June 7 by a committee which framed a tentative outline permitting of immediate action. The result of the work of this original body was placed before the men, who sent delegates to a subsequent gathering when officers were elected and the structure of the society formed.

The following bulletins describe the meetings and their results:

Lat. 46° 37′ N. — Long. 2° 28′ W.
On Board U.S.S. Calamares
June 7, 1919

At the call of the Chairman of the Committee appointed by Memorandum dated May 26, 1919, Headquarters 301st Engineers, a meeting was held June 7, 1919.

At the meeting, presided over by Lieutenant-Colonel Dean as Chairman, the following tentative Outline of Aims and Purposes and Organization of an Association were proposed:

I. Name and Location. — The name of the organization shall be "The 301st Engineers' Association" and the office of Secretary-Treasurer shall be located at Providence, R.I.

II. Eligibility. — Three months' service with the 301st Engineers shall constitute eligibility to membership.

III. Aims and Purposes.

1. There shall be maintained a permanent roster of the names and addresses of the members without respect to rank in order to perpetuate the memories of the unit.
2. The Association shall act as a custodian of such regimental property as does not revert to Government or State.
3. The Association shall establish a central point of information concerning men of the regiment.
4. The Association shall organize any regimental reunions.
5. The Association shall function as a source of aid of any character to members.

IV. Organization.

The Association shall include the following officers:

1. President — whose duties shall be to preside at all meetings and reunions and to act as member ex-officio of the advisory or executive committees. He shall be elected for a term of two years.
2. Five Vice-Presidents — whose duties it shall be to assist the President in the execution of his office. They shall be elected for a term of two years.
3. Secretary-Treasurer — whose duties shall be: responsibility for the maintenance of records and information, and custodian of regimental property and shall accomplish the business of the organization and administer the funds in conjunction with the chairman of the advisory commttiee. He shall be elected for a term of two years and shall be a resident of Providence, R.I.
4. Advisory Committee — which shall consist of one member from New York State, one from Massachusetts, and a chair-

MAP OF THE OCCUPIED DISTRICT OF GERMANY

man from Rhode Island. Their duties shall be to directly cooperate with the Secretary-Treasurer, to offer suggestions for the improvement of the Association and to devise schemes for the more closely knitting together of the Association.

The initial term of the members shall be as follows: Rhode Island member, three years; Massachusetts member, two years; New York member, one year. Subsequently they shall be elected for a term of three years.

5. Historian — whose duties shall be to permanently record the history of the regiment. He shall be elected for a term of three years.

V. A meeting will be held Wednesday morning, June 11, 1919, to which each letter company will delegate five men, Headquarters Detachment, three men, Engineer Train, two men, and Medical Detachment, one man, who will have power to elect officers of the Association, which officers will have the power to formulate a charter defining the aims and organization of the Association to be presented at the first reunion of the regiment.

The committee will be present at this meeting to explain any questions that may arise as to the preceding articles.

Signed:

NORMAN D. DEAN
Lt.-Col. Corps of Engrs.
WALLACE M. HENDRICK
Captain, Engrs.
RALPH K. REYNOLDS
1st Lt. Engrs.
EDMOND L. BOONE
Regtl. Sgt. Maj.
HENRY G. MARSH
Color Sergeant
GEORGE C. TRAVERS
1st Sgt. Co. D.
(THE ORIGINAL COMMITTEE)

ON BOARD U.S.S. CALAMARES
June 11, 1919

A meeting of the delegates to elect officers for the 301st Engineers' Association was held on board the U.S.S. Calamares, June 11, 1919, at 2 P.M. with the following delegates present:

Co. A. 1st Sgt. Thomas J. Joyce
Sgt. 1 cl. Joseph L. Duffy
Sgt. 1 cl. Wm. C. McCaughey
Sgt. Thomas F. Hanron
Cpl. James H. Sweeney

Co. B. Cpl. James E. Whittemore
Pvt. 1 cl. Thomas J. Hennigan
Pvt. 1 cl. John T. O'Brien
Pvt. Thomas J. McDonald
Pvt. James Murphy

Co. C. Sgt. 1 cl. Cæsar T. Cambio
Sgt. John McGuire
Cpl. James Connolly
Pvt. George McGrath
Pvt. Reuben Higgins

Co. D. 1st Sgt. George C. Traver
Cpl. Wm. H. Taber
Cpl. E. M. Sullivan
Pvt. Wm. L. Smith
Pvt. John P. Glynn

Co. E. 1st. Sgt. Richard E. Goff
Sgt. Abraham Samuels
Cpl. Herbert R. Norton
Pvt. 1 cl. Kenneth E. Bradbury
Pvt. Henry P. Brady

Co. F. Sgt. 1 cl. E. J. Maloney
Sgt. Byron F. Hudson
Sgt. D. F. Holm
Pvt. 1 cl. W. E. Kimmelberg
Pvt. Alfred King

Engr. Train —
1st Sgt. L. J. A. Bennett
Sad. George Lunt

Hq. Det. Sgt. Maj. E. L. Boone
Mr. Engr. Jr. Gr. N. J. Deveaney
Pvt. Robert C. Ferguson
Med. Det. Pvt. Wm. Montgomery

The original committee was present.

Lt.-Col. Norman D. Dean called the meeting to order at 2.10 P.M. Col. Dean made a few brief remarks regarding the Association and then called for nominations for temporary chairman and secretary.

Sgt. Byron F. Hudson and Sgt. Thomas F. Hanron nominated for temporary chairman.

Sgt. Thomas F. Hanron was elected.

Cpl. James H. Sweeney elected temporary secretary.

Sgt. Maj. Edmond L. Boone and 1st Sgt. Walter Gomez nominated for President.

Sgt. 1 cl. Joseph L. Duffy and Sgt. 1 cl. E. J. Maloney nominated and declined.

Sgt. John McGuire and 1st Sgt. Thomas L. Joyce appointed tellers.

Result of election: Sgt. Maj. Boone 28; Sgt. Gomez 5; defective 2; absent 1.

Sgt. Maj. Edmond L. Boone declared elected and took office at once.

The following nominations for Vice-President were made:

Col. F. A. Pope, 1st Sgt. R. E. Goff, Capt. W. F. Hussey, Capt. C. Powers, Lt. A. G. Cherry, Maj. H. S. Porter, 1st Sgt. T. L. Joyce and Lt. Starr. Sgt. Hudson declined.

Voted that nominations be closed:

Result of election: Col. Pope 33; Sgt. Goff 16; Capt. Hussey 26; Capt. Powers 29; Lt. Cherry 31; Maj. Porter 11; Sgt. T. L. Joyce 12; Lt. Starr 13; defective 2.

Col. Pope, Lt. Cherry, Capt. Powers, Capt. Hussey and Sgt. Goff declared elected.

Color Sgt. Henry G. Marsh nominated for Secretary-Treasurer.

Moved and seconded that nominations be closed and Secretary cast one ballot for Sgt. Marsh.

Sgt. Marsh declared elected and took office.

Voted to change Advisory Committee to include one member from Connecticut.

Sgt. 1 cl. Joseph L. Duffy nominated as member of Advisory Committee from Rhode Island.

Nominations closed and Secretary instructed to cast one ballot for Sgt. Duffy.

Sgt. Duffy declared elected.

1st Sgt. George C. Traver nominated as member of Advisory Committee from New York.

Nominations closed and Secretary instructed to cast one ballot for Sgt. Traver.

Sgt. Traver declared elected.

Sgt. Walter Gomez nominated as member of Advisory Committee from Massachusetts.

Nominations closed and Secretary instructed to cast one ballot for Sgt. Gomez.

Sgt. Gomez declared elected.

The following nominations were made for member from Connecticut on Advisory Board:

Sgt. 1 cl. E. J. Maloney, 1st Sgt. T. L. Joyce, Sgt. John F. Hogan, Sgt. John C. Hewitt.

Result of election: Sgt. Joyce 14; Sgt. Maloney 7; Sgt. Hewitt 7; Sgt. Hogan 4.

Sgt. Joyce declared elected.

The following nominations for Historian: Sgt. T. F. Hanron, Cpl. J. E. Whittemore, Pvt. Clinton Hester; Lt. Col. Dean, Sgt. Cambio, Pvt. W. E. Kimmelberg declined nominations.

Nominations closed and ballots taken:

Result of election: Sgt. Hanron 19; Pvt. Hester 11; Cpl. Whittemore 5.

Sgt. Hanron declared elected.

Other business was discussed which was afterward stricken from the minutes. A rising vote of thanks was given the original committee. The meeting adjourned at 4.15 P.M.

HENRY G. MARSH
Sec.-Treas.

It was not realized, perhaps, by all, that interest in such a society is, at the present writing, at its lowest ebb. Men and officers were intent upon leaving the service and going home, but undoubtedly the future years will develop an interest and pride in any association connected with the old regiment with which they served so loyally and well.

APPENDIX

APPENDIX

A

(To Part I)

OFFICERS OF THE THREE HUNDRED AND FIRST ENGINEERS

I. OFFICERS ORIGINALLY ASSIGNED TO THE THREE HUNDRED AND FIRST ENGINEERS

Name	Duty with 301st Engineers	Remarks
Col. F. A. Pope	Commanding Regiment	
Lt. Col. F. B. Downing	Second in Command	4/16/18 Promoted to Colonel Engrs. 4/17/18 Transf. to 109th Engrs., Camp Cody, N.M.
Maj. H. F. Cameron	Commanding 1st Bn	12/29/17 Transf. to E.O.T.C., Camp Lee, Va.
Maj. R. M. Lawton	Commanding 2d Bn.	12/27/17 Transf. to C.G., Hoboken, N.J.
Capt. E. C. Greene	Regimental Surgeon	3/23/18 Promoted to Major
Capt. W. F Hussey	Regimental Adjutant	2/1/18 To Command of Co. F.
Capt. H. J. Betterley	Regimental Supply Officer	6/14/18 To Command of Co. C.
Capt. E. P. Trott	Regimental Topo. Officer	3/31/18 To Command of Co. A.
Capt. A. L. Shaw	1st Battalion Adjutant	6/14/18 To Command of Co. E.
Capt. M. H. Pease	2d Battalion Adjutant	12/21/17 To Command of Co. C. 6/14/18 Appointed 1st Bn. Adj.
Capt. R. L. Whipple	Commanding Co. A.	3/28/18 Promoted to Major Engrs. Assigned to 2d Bn. 6/9/18 Promoted to Lt. Col.
Capt. E S. Warner	Commanding Co. B.	
Capt. J. F. Doran	Commanding Co. C.	1/8/18 Resigned from Service
Capt. A. W. Waldron	Commanding Co. D.	
Capt. N. D. Dean	Commanding Co. E.	3/31/18 Aptd. Topo. Officer 6/6/18 Promoted to Major Engrs. Assigned to 1st Bn.
Capt. H. S. Porter	Commanding Co. F.	2/1/18 Aptd. Regtl. Adjutant 6/14/18 Aptd. Regtl. Topo. Officer
1st Lt. L. A. Ramsey	Regimental Chaplain	
1st Lt. E. G. Benedict	Company A	3/28/18 Transf. to 56th Engrs., Washington, D.C.
1st Lt. E. J. Weaver	Company A	Promoted to Capt. Engrs. from 3/4/19
1st Lt. W. R. Morse	Company B	1/22/18 Promoted to Capt. Engrs. with Hq. Co from 11/23/17 3/29/18 Aptd. 2d Battalion Adjutant 6/14/18 Aptd. Regimental Adjutant
1st Lt. C. Powers	Company B	6/6/18 Promoted to Capt. Engrs. 6/14/18 Aptd. Regimental Supply Officer
1st Lt. D. H. B. Starr	Company C	
1st Lt. M. C. Mapes	Company C	
1st Lt. E. J. Kiely, Jr	Company B	5/17/18 Transf. to 538th Engrs., Camp Meade, Md.
1st Lt. A. H. Codaire	Company D	1/12/18 Resigned from Service
1st Lt. J. J. Devlin	Company E	5/8/18 Promoted to Capt. Engrs., Commanding Co. E. 6/14/18 Aptd. 2d Battalion Adjutant

Name	Duty with 301st Engineers	Remarks
1st Lt. C. J. Kittredge	Company E	
1st Lt. G. C. Day	Company F	5/22/18 Transf. to 538th Engrs., Camp Meade, Md.
1st Lt. A. C. Peters	Company F	5/17/18 Transf. to 538th Engrs., Camp Meade, Md.
1st Lt. K. T. Leighton	Comdg. Engineer Train	5/22/18 Transf. to 538th Engrs., Camp Meade, Md.
2d Lt. J. F. V. Brady	Company A	1/17/18 Promoted to 1st Lt. Engrs.
2d Lt. F. W. Garran	Company B	6/11/18 Promoted to 1st Lt. Engrs.
2d Lt. W. E. Bowler	Company C	5/17/18 Aptd. Regimental Post Exchange Officer
		6/15/18 Promoted to 1st Lt. Engrs.
2d Lt. B. W. Bartholomew	Company D	5/14/18 Promoted to 1st Lt. Engrs.
2d Lt. A. E. McDonald	Company E	3/25/18 Promoted to 1st Lt. Engrs.
2d Lt. R. K. Reynolds	Engineer Train	6/10/18 Promoted to 1st Lt. Engrs.
1st Lt. J. E. Hume	Medical Department	11/13/17 Captain from 1st Lt.
		3/18/18 Transf. to Med. Dept. 303d F.A., Camp Devens, Mass.
1st Lt. S. Stern	Medical Department	11/10/17 Captain from 1st Lt.
		1/31/18 Transf. to command Med. Dept., Q.M.C., Camp Devens

II. OFFICERS ORIGINALLY ASSIGNED FOR TEMPORARY DUTY OR ATTACHED WHO LATER WERE ASSIGNED TO THE THREE HUNDRED AND FIRST ENGINEERS

Name	Duty with 301st Engineers	Remarks
1st Lt. E. F. Kelly	Company F	10/22/17 From assigned for temporary duty to assigned to Regiment
1st Lt. J. B. Rutter	Company D	10/22/17 From attached to assigned to Regiment
		5/17/18 Transf. to 539th Engrs., Camp Gordon, Ga.
1st Lt. C. Callaghan	Company C	10/22/17 From attached to assigned
		4/29/18 Aptd. Regimental Post Exchange Officer
		5/17/18 Transf. to 538th Engrs., Camp Meade, Md.
1st Lt. S. W. Merrill	Company B	10/22/17 From attached to assigned
		6/14/18 Aptd. Acting Regimental Topographical Officer
2d Lt. J. E. Turgeon	Company A	10/22/17 From assigned for temporary duty to assigned to Regiment
		3/28/18 Promoted to 1st Lt. Engrs.
2d Lt. J. R. Patterson	Company C	6/11/18 Promoted to 1st Lt. Engrs.
2d Lt. A. S. Hathaway	Company F	9/15/17 Assigned to Regiment
		11/28/17 Transf. to Hoboken, N.J.
2d Lt. R. D. Braman	Company F	10/22/17 From attached to assigned with Regiment
		6/15/18 Promoted to 1st Lt. Engrs.
2d Lt. M. G. Shepard	Company D	10/22/17 From attached to assigned to Regiment
		4/1/18 Promoted to 1st Lt. Engrs.
2d Lt. J. A. Root	Company B	10/22/17 From attached to assigned to Regiment
		1/21/18 Promoted to 1st Lt. Engrs.
2d Lt. E. F. Deacon	Company C	10/22/17 From attached to assigned to Regiment
		9/3/17 Aptd. Regimental Post Exchange Officer

III. OFFICERS ORIGINALLY ASSIGNED FOR TEMPORARY DUTY OR ATTACHED WHO LATER WERE TRANSFERRED

Name	Duty with 301st Engineers	Remarks
Capt. E. W. Robinson.....	..	10/22/17 Transf. to 506th Service Bn.
Capt. H. J. Muehleman.....	..	10/20/17 Transf. to 503d Service Bn.
Capt. L. E. Moore.....	..	9/13/17 Transf. to Chief of Engineers, Washington, D.C.
Capt W. T. Gould.....	..	11/15/17 Transf. to Hoboken, N.J.
Capt. P. H. Spear...	..	10/25/17 Transf. to Engr. Reg., Hoboken, N.J.
1st Lt. E. C. Souls.....	..	9/24/17 Transf. to 82d Div.
1st Lt. W. Dickens.....	..	10/22/17 Transf. to 507th Service Bn.
1st Lt. G. M. March.....	..	10/8/17 Transf. to Camp Funston
1st Lt. T. W. Bailey.....	..	9/5/17 Transf. to 101st Engrs.
2d Lt. F. H. Kiersted.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. C. H. Hagelstein.....	..	11/22/17 Transf. to Fort Munroe, Va.
2d Lt. A. L. Rogers.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. L. S. Winslow.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. T. D. Wheeler.....	..	12/11/17 Transf. to Fort Ethan Allen, Vt.
2d Lt. J. R. Carlson.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. J. C. Monahan.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. C. W. Dresser.....	..	11/22/17 Transf. to Fort Munroe, Va.
2d Lt. J. A. Galvin.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt R. B. Graham.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. H. W. Brown.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. P. A. Anderson.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. A. P. Kivlin.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. J. E. Eckstein.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. R. E. Kistler.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. G. M. Keith.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. H. M. Bartlett.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. V. T. Dow.....	..	11/24/17 Transf. to Hoboken, N.J.
2d Lt. E. J. Kluge.....	..	9/5/17 Transf. to 101st Engrs.
2d Lt. J. F. Wood.....	..	9/5/17 Transf. to 101st Engrs.
2d Lt. G. E. Gay.....	..	9/5/17 Transf. to 101st Engrs.
2d Lt. J. W. Strong.....	..	9/5/17 Transf. to 101st Engrs.
2d Lt. J. J. Foley.....	..	9/5/17 Transf. to 101st Engrs.

IV. OFFICERS JOINING THE REGIMENT AFTER ITS ORIGINAL ORGANIZATION

Name	Duty with 301st Engineers	Remarks
Maj. J. E. Cassidy.....	Commanding 1st Bn	1/7/18 Assigned to Regiment 6/17/18 Promoted to Lt. Colonel, Assigned to 317th Engrs., Camp Upton, N.Y.
1st Lt. W. A. Hendrick.....	Company B.....	11/30/17 Attached to Regiment 6/15/18 Promoted to Capt. Engrs.
1st Lt. C. H. Tannebring....	Dental Department.....	9/10/17 Attached to Regiment
1st Lt. H. L. Stone.....	Dental Department.....	9/12/17 Attached to Regiment 11/26/17 Transf. to Concentration Camp, Garden City, L.I
1st Lt. J. R. Quinn.....	Dental Department.....	10/22/17 Attached to Regiment
1st Lt C. H. Mackey.....	Medical Department.....	10/29/17 Attached to Regiment 5/18/18 Promoted to Capt. M.R.C. 6/12/18 Assigned to General Hospital No. 4, N.Y.
1st Lt. J. L. Touchstone	Medical Department.....	3/18/18 Attached to Regiment

Name	Duty with 301st Engineers	Remarks
1st Lt. R. E. Brown	Medical Department	6/19/18 Assigned to Regiment
2d Lt. J. Harper	Company A	1/16/18 Aptd. 2d Lt. 6/15/18 Promoted to 1st Lt. Engrs.
2d Lt. R. E. Carroll	Company D	1/16/18 Aptd. 2d Lt. 6/15/18 Promoted to 1st Lt. Engrs.
2d Lt. A. G. Cherry	Company E	1/16/18 Aptd. 2d Lt. — Previously Regimental Sgt. Major 6/15/18 Promoted to 1st Lt. Engrs.
2d Lt. R. W. Ibell	Hq. Company	4/30/18 Attached to Regiment 5/15/18 Assigned to Regiment
2d Lt. C. B. Waite	Company F	4/30/18 Attached to Regiment 5/21/18 Assigned to Regiment
2d Lt. P. E. O'Brien	Company A	4/30/18 Attached to Regiment 5/15/18 Assigned to Regiment
2d Lt. F. N. Billingsley	Company C	4/23/18 Attached to Regiment 5/21/18 Assigned to Regiment
2d Lt. G. C. Eldridge	Company D	4/23/18 Attached to Regiment 5/21/18 Assigned to Regiment
2d Lt. J. M. Cunningham	Company E	4/23/18 Attached to Regiment 5/21/18 Assigned to Regiment
2d Lt. N. J. Cheshire	Company E	4/23/18 Attached to Regiment 5/21/18 Assigned to Regiment
2d Lt. R. O. Delano	Engineer Train	4/22/18 Attached to Regiment 5/15/18 Assigned to Regiment
2d Lt. F. C. Tatnall	Company E	6/22/18 Assigned to Regiment
2d Lt. J. W. Begley	Company B	6/3/18 Assigned to Regiment
2d Lt. P. J. Ronchetti	Company F	6/27/18 Assigned to Regiment
2d Lt. O. N. Rugen	Company B	6/27/18 Assigned to Regiment
2d Lt. W. Ruppel	Company D	6/27/18 Assigned to Regiment
Maj. F. W. Albert	..	12/3/17 Attached to Regiment 1/19/18 Assigned to 33d Engrs.
Capt. W. C. Kochendoerffer	..	12/3/17 Attached to Regiment 5/17/18 Transf. to 538th Engrs., Camp Meade, Md
Capt. C. G. Carothers	..	12/3/17 Attached to Regiment 1/12/18 Transf. to Hoboken, N.J.
Capt. F. Willets	..	12/11/17 Attached to Regiment 1/24/18 Transf. to Hoboken, N.J.
Capt. J. W. Dougherty	..	12/3/17 Attached to Regiment 1/9/18 Transf. to Hoboken, N.J.
Capt. G. E. Robinson	..	5/1/18 Attached to Regiment 5/24/18 Transf. to 151st Dépôt Brigade, Camp Devens
Capt. J. T. Trumbull	..	12/3/17 Attached to Regiment 12/14/17 Transf. to 25th Engrs., Camp Devens
1st Lt. C. E. Chatfield	..	12/3/17 Attached to Regiment 1/9/18 Transf. to Hoboken, N.J.
1st Lt. S. B. Over	..	12/3/17 Attached to Regiment 1/9/18 Transf. to Hoboken, N.J.
1st Lt. R. Knibloe	..	12/3/17 Attached to Regiment 1/9/18 Transf. to Hoboken, N.J.
1st Lt. D. A. Smith	..	12/3/17 Attached to Regiment 1/9/18 Transf. to Hoboken, N.J.
1st Lt. A. J. Donniez	..	11/30/17 Attached to Regiment 1/19/18 Transf. to Washington Barracks, Wash., D.C.
1st Lt. C. Reynell	..	12/11/17 Attached to Regiment 1/19/18 Transf. to Washington Barracks, Wash., D.C.
1st Lt. F. C. Daniels	..	5/31/18 Attached to Regiment-Medical Department 6/3/18 Assigned as Acting Division Dental Surgeon, 76th Division

Name	Duty with 301st Engineers	Remarks
1st Lt. N. Grant	..	12/3/17 Attached to Regiment 12/14/17 Transf. to 25th Engrs., Camp Devens
1st Lt. H. A. Hobson	..	12/3/17 Attached to Regiment 12/14/17 Transf. to 25th Engrs., Camp Devens
1st Lt. J. C. Diehl	..	12/3/17 Attached to Regiment 12/14/17 Transf. to 25th Engrs., Camp Devens
1st Lt. C. A. Henderson	..	12/3/17 Attached to Regiment 12/14/17 Transf. to 25th Engrs., Camp Devens
1st Lt. W. C. Powell	..	11/30/17 Attached to Regiment 12/14/17 Transf. to 25th Engrs., Camp Devens
1st Lt. R. S. Tilden	..	12/11/17 Attached to Regiment 12/14/17 Transf. to 25th Engrs., Camp Devens
1st Lt. M. M. Green	..	12/3/17 Attached to Regiment 12/22/17 Assigned to 24th Engrs., Camp Dix, N.J.
1st Lt. B. S. Norcross	..	11/30/17 Attached to Regiment 12/18/17 Transf. to E.O.T.C., Camp Lee, Va.
1st Lt. C. P. McMorrow	..	12/11/17 Attached to Regiment 12/16/17 Transf. to E.O.T.C., Camp Lee, Va.
1st Lt. R. N. Abole	..	6/18/18 Attached to Regiment 6/19/18 Transf. to Med. Dept., Q.M.C., Camp Devens
2d Lt. R. S. Farr	..	12/3/17 Attached to Regiment 1/9/18 Transf. to Hoboken, N.J.
2d Lt. J. A. Currin	..	12/3/17 Attached to Regiment 1/12/18 Transf. to Hoboken, N.J.
2d Lt. M. A. Darville	..	12/3/17 Attached to Regiment 1/9/18 Transf. to Hoboken, N.J.
2d Lt. J. J. Hedrick, Jr.	..	12/3/17 Attached to Regiment 1/9/18 Transf. to Hoboken, N.J.
2d Lt. G. R. Hukill	..	12/3/17 Attached to Regiment 1/12/18 Transf. to Hoboken, N.J.
2d Lt. O. S. Petty	..	4/30/18 Attached to Regiment 5/24/18 Transf. to 151st Dépôt Brigade, Camp Devens
2d Lt. H. Dunbar	..	5/1/18 Attached to Regiment 5/24/18 Transf. to 151st Dépôt Brigade, Camp Devens
2d Lt. L. J. Hodges	..	5/1/18 Attached to Regiment 5/24/18 Transf. to 151st Dépôt Brigade, Camp Devens
2d Lt. J. M. Demarest	..	12/3/17 Attached to Regiment 12/14/17 Transf. to 25th Engrs., Camp Devens
2d Lt. R. C. Churchill	..	12/3/17 Attached to Regiment 12/14/17 Transf. to 25th Engrs., Camp Devens

B

(To Part I)

HEADQUARTERS 301ST ENGINEERS
CAMP DEVENS, MASS., *October* 20, 1917

TRAINING SCHEDULE — PREPARATORY COURSE

Week of October 22, 1917

period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Remarks
7:15 8:00	Physical Drill	Physical Drill	Physical Drill	Physical Drill	Physical Drill	Physical Drill	Calisthenics. Running and Jumping
8:15 9:15	Infantry Drill	Infantry Drill	Infantry Drill	Infantry Drill	Infantry Drill	Infantry Drill	By Company Officers
9:30 10:30	Infantry Drill	Infantry Drill	Infantry Drill	Infantry Drill	M a r c h i n g	Interior Police	By Company Officers
10:45 11:45	Lecture, Duties of the Engineer Soldier	Lecture, Care and Use of the Rifle	Lecture, Engr. Equipment and Tools, their use	Lecture, by Medical Officer, Personal Hygiene		Inspection	By Company Officers
1:00 2:00	Layout of Trenches by Capt. Robinson and Selected Officer each Company (a)	Trench Construction (b)	Trench Construction (b)	Instruction Guard Duty (b) Capt. Waldron	Trench Construction (b)	A s	(a) N.C.O.'s and selected privates (10 from each Company). (b) Entire Company by reliefs
2:15 3:15				C e r e m o n i e s		O r d e r e d	
3:30	Schools, Instruction in Guard Duty	Schools, Test in Orders for Sentinels	Schools, Nomenclature. Field Fortifications		Schools, Tests in Nomenclature. Field Fortifications		N.C.O.'s and selected privates

301st Engineers
Official
N.A.

301st Eng. Topo. Office
J.F.H., *Jan.* 11, 1918
E.W.P. *Jan.* 20, 1919

(COPY)

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *April* 16, 1918

General Orders
No. 19

1. Beginning at Guard Mount April 17, 1918, the following guard orders will supersede those covered in G. O. 15, series of 1917, and G. O. 10 and 16 e. s.

Post No. 1. This is Post No. 1. It extends along the front of the Guard House, from a point opposite the west end of the Guard House Latrine to a point opposite east end of building No. 451. I will prevent the removal by any unauthorized person of any property in the vicinity of my post. I will prevent the escape of prisoners confined in the Guard House and in building No. 451. In case of an alarm of fire I will immediately notify the Corporal of the Guard.

Post No. 2. This is Post No. 2. It extends from a point in the street between the north ends of storehouses No. 457 and No. 458, passing around these buildings, keeping them on my right, thence along the street to the south end of the Engineer Post Exchange, thence around the Exchange, keeping it on my right. I will allow no person to loiter near or enter the storehouses without authority of the supply officer. I will allow no one to unlock the exchange without proper authority from the post exchange officer. I will arrest any suspicious persons and will prevent the unauthorized removal of property. I will require all vehicles to observe proper speed limits in the neighborhood of my post.

Post No. 3. This is Post No. 3. It extends along the street in front of regimental headquarters from a point opposite the south side of building No. 3050 to the street corner near building No. 3051, thence along the street to a point opposite the east side of building No. 441. I will regularly walk that part of my post between the east side of building No. 3051 and the south end of the regimental hospital. I will allow no unauthorized person to enter any building adjacent to my post. I will require all vehicles to observe proper speed limits and will prevent them from using passages not intended for traffic. In case of fire in the Engineer area I will give the alarm by calling "Fire" and will use fire alarm telephone No. 352, turn in the alarm to the Fire Department and will notify the Corporal of the Guard of my action.

Post No. 4. This is Post No. 4. It extends around the officers' quarters and mess and the headquarters garage, keeping this group of buildings on my right. I will allow no unauthorized person to enter any building adjacent to my post. I will prevent all persons from removing public or private property without authority, and will prevent all vehicles and persons from using passages not intended for traffic.

Post No. 5. This is Post No. 5. It extends around the stable area of the Engineer Train, keeping the stables on my right. I will prevent un-

authorized persons from entering any building adjacent to my post and will prevent the improper removal of any government property. I will be especially watchful for fires.

Post No. 6. This is Post No. 6. It extends from a point on the road near headquarters stable No. 468 about 50 feet from headquarters wagon shed No. 2037 to A Company's stable No. 466, thence to the west end of B Company's stable No. 467 to C Company's stable No. 471 and thence past headquarters stable No. 469 to the starting point. I will prevent unauthorized persons from entering any building adjacent to my post and will prevent the improper removal of any government property. I will be especially watchful for fires.

Post No. 7. This is Post No. 7. It extends from a point on the road opposite building No. 2035 around buildings No. 472, No. 473 and No. 2036 to the starting point. I will prevent unauthorized persons from entering any building adjacent to my post, and will prevent the improper removal of government property. I will be especially watchful for fires.

Post No. 8. This is Post No. 8. It extends around Engineer Trench Area on the north side of main road. I will allow no one to enter dugouts, unless accompanied by an Engineer Officer. I will allow no picnicing on grounds or undue loitering. I will permit no nuisance to be committed in area.

Post No. 9. This is Post No. 9. It extends around Engineer Trench Area on the south side of main road. I will allow no one to enter dugouts, unless accompanied by an Engineer Officer. I will allow no picnicing on grounds or undue loitering. I will permit no nuisance to be committed in area.

2. Posts 8 and 9 will be guarded only on Saturday 12 noon until 8 P.M., Sundays and holidays from 9 A.M. until 8 P.M.

By order of Colonel POPE
Capt., Engrs., R.C., Adjutant

(COPY)

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *Jan.* 1, 1918

General Orders
No. 1

1. The following list of calls is announced, effective until further orders:

	Daily except Sat., Sun., and Holidays	Saturday	Sunday and Holidays
Reveille, 1st Call	6.15 A.M.	6.15 A.M.	7.15 A.M.
March & Reveille	6.25	6.25	7.25
Assembly	6.30	6.30	7.30
Mess, breakfast	6.45	6.45	7.45
Fatigue	7.20	7.20	8.20
Drill, Physical, 1st Call	7.50	7.50	
Assembly	8.00	8.00	
Recall	9.00	9.00	
Church Call			8.30
Drill, 1st Call	9.10	9.10	
Assembly	9.15	9.15	
Recall	10.15		
Drill, 1st Call	10.25		
Assembly	10.30		
Recall	11.30		
Church Call			10.15
Inspection, 1st Call		10.35	
Assembly		10.45	
Mess, dinner	12.00 M.	12.00 M.	12.30 P.M.
Drill, 1st Call	12.50 P.M.		
Assembly	1.00		
Recall	3.15		
School Call, Non-Com. officers	3.20		
Assembly	3.30		
Recall	4.30		
Guard Mount, 1st Call	3.40	3.40	3.40
Assembly	3.45	3.45	3.45
Sick Call	4.40	4.40	4.40
Retreat, 1st Call	4.40	4.40	4.40
Assembly	4.45	4.45	4.45
Mess, supper	5.15	5.15	5.15
Call to quarters	9.00	9.00	9.00
Taps	10.00	10.00	10.00

2. When any period of instruction occupies two or more consecutive drill periods, as per weekly instruction schedules, the Sergeant Bugler will instruct the buglers to omit the intermediate calls.

By order of Colonel POPE
W. F. HUSSEY
Captain, Engineers, R.C., Adjutant

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *Jan.* 5, 1918

TRAINING SCHEDULE—PREPARATORY COURSE

(*Twelfth Week*)

Week of January 9, 1918

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Remarks
8:00 9:00	Physical Drill Horse (a) Exercise (b)	Physical Drill Horse (a) Exercise (b)	Physical Drill Horse (a) Exercise (b)	Physical Drill Horse (a) Exercise (b)	Physical Drill Horse (a) Exercise (b)	Physical Drill Horse (a) Exercise (b)	(a) To include running and individual contests (b) 1 Officer, 6 N.C.O.'s, 28 selected Privates
9:15 11:30	½ F. Fortifications and Mining (c) ½ Inf. Extended Order and Bayonet Exercise (d)	½ F. Fortifications and Mining (c) ½ Inf. Extended Order and Bayonet Exercise (d)	Marching Fortifications and Mining for those detailed under (b)	½ Fortifications and Mining (c) ½ Inf. Extended Order and Bayonet Exercise (d)	½ Fortifications and Mining (c) ½ Inf. Extended Order and Bayonet Exercise (d)	Interior Police Inspection (e)	(c) Directed by Lieut. Mapes (d) By Platoons (e) By Companies (f) Memo 192 Hq. N.A.C. (g) By Platoons 2d Sections (h) N.C.O.'s and selected men as directed by Company Commanders
			NOON HOUR				
1:00 3:15	½ Fortifications and Mining (c) ½ Inf. Close Order and Man. of Arms (g)	½ Fortifications and Mining (c) ½ Inf. Close Order and Man. of Arms (g)	½ Fortifications and Mining (c) ½ Inf. Close Order and Man. of Arms (g)	1st Bn. (f) Conference and Gas Instruction 2d Bn. ½ Fort. and Mining (c) ½ Inf. (g)	2d Bn. (f) Conference and Gas Instruction 1st Bn. ½ Fort. and Mining (c) ½ Inf. (g)	As Ordered	
3:30 4:30	Instruction and Practice in Signalling (h)	Instruction and Practice in Signaling (h)	Qualification Test in Signalling (h)	As directed by Company Commanders	As directed by Company Commanders		

301st Engineers
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301st Eng. Topo. Office
J.F.H. *Jan.* 8, 1918
E.W.P. *Jan.* 21, 1919

TRAINING SCHEDULE — PREPARATORY COURSE

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *April* 26, 1918

Week of April 29, 1918

Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7:15	Physical Drill Regiment as Provisional Battalion			Practice March with Packs Regiment as Provisional Battalion All Officers (b)	Physical Drill Regiment as a Provisional Battalion	
8:00	Horse Exercise and Packing 1 Squad (both periods) (a)					
8:15	Close Order Drill					
9:15	School of Squad for instruction of N.C.O.'s. (All Officers)				Same As Monday	Interior Police
9:30		Close Order Drill School of Company All Officers				Inspection on Drill Field by Battalion
10.30						
10:45		Bayonet Fighting All Officers				
11:45						
			NOON HOUR			
1:30		Problems in Minor Tactics (c)		Problems in Minor Tactics (c)		
3:30	Target Practice on Range (d)		Target Practice on Range		Target Practice on Range (d)	As Ordered
3:40		Singing Drill by Companies		Singing Drill by Companies		
3:55						
4:00		Battalion Drill (all men on detail) Regiment as Prov. Bn.		Battalion Drill (all men on detail) Regiment as Prov. Bn.		
5:00						
5:00	Rest					
5:15						
5:15						
5:30	Retreat	Reg. Parade	Retreat	Reg. Parade	Retreat	

Remarks

Regimental Parade Tuesday and Thursday

Formal Guard Mount Monday, Wednesday, and Friday

Drill in gas masks will continue so that not less than one hour per week will be given

N.C.O. School will continue by battalions

N.C.O. School in Field Fortifications as ordered

Battalion Physical Drill will be supervised by one Company Commander each day beginning Monday with Captain Trott, Company A

301st Engineers
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N.A.

(a) Directed by Captain Betterley
(c) Directed by Captain Pease

(b) Directed by Major Whipple
(d) Directed by Lieutenant Brady

301st Eng. Topo. Office
H.H.C., *April* 26, 1918
E.W.P. *Joan.* 25, 1919

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *May* 21, 1918

General Orders
No. 28

1. The following list of calls is announced effective May 21, 1918 and until further orders:

	Daily except Sat., Sun., and Holidays	Saturday	Sunday and Holidays
Reveille, first call	5.15 A.M.	5.15 A.M.	6.15 A.M.
March and reveille	5.25	5.25	6.25
Assembly	5.30	5.30	6.30
Mess (breakfast)	5.45	5.45	6.45
Fatigue	6.20	6.20	7.20
Drill, first call	6.40	6.40	
Assembly	6.45	6.45	
Recall	7:15	7.15	
Church Call			8.30
Drill, first call	7.25		
Assembly	7.30		
Recall	8.45		
Drill, first call	8.55		
Assembly	9.00		
Recall	10.15		
Inspection		8.50	
Assembly		9.00	
Church Call			10.15
Drill, first call	10.25		
Assembly	10.30		
Recall	11.45		
First Sergeants		11.25	
Mess (dinner)	12.00 M.	12.00	12.30
Drill, first call	12.55 P.M		
Assembly	1.00		
Recall	2.15		
First Sergeants Call	2.25		
Drill, first call	2.25		
Assembly	2.30		
Recall	3.45		
Drill, first call	3.55		
Assembly	4.00		
Recall	5.00		
Guard Mount, first call	4.45	4.45	4.45
Assembly	4.50	4.50	4.50
Adjutants Call	4.55	4.55	4.55
Sick Call	5.05	5.05	5.05
Retreat, first call	5.20	5.20	5.20
Assembly	5.25	5.25	5.25
Retreat	5.30	5.30	5.30

	Daily except Sat., Sun., and Holidays	Saturday	Sunday and Holidays
Mess (supper) immediately after Retreat		Immediately after Retreat	
Call to Quarters	9.00	9.00	9.00
Taps	10.00	10.00	10.00

2. When any period of instruction occupies two or more consecutive drill periods, as per weekly instruction schedules, the Sergeant Bugler will instruct the buglers to omit the intermediate calls.

3. Buglers will report to the Adjutant to adjust their watches as often as may be necessary to insure calls being blown at the proper time.

By order of Major Cassidy
H. S. Porter
Captain, Engineers, R.C., Adjutant

Headquarters, 301st Engineers
Camp Devens, Mass., *April* 22,1918

General Orders
No. 21

1. The presentation of the regimental flag by the donor, Mr. H. J. Lynd, will take place Tuesday, April 23, 1918 in accord with the following schedule:

1st Call.....2.15 P.M.
Assembly.....2.20 P.M.
Adjutant's Call.....2.25 P.M.

Every officer and man available in the regiment will be in ranks.

2. National and Regimental Colors will be brought to the reviewing stand eased. Color Guard will remain at the reviewing stand until after the colors are presented.

3. Regiment will be formed in line and ranks opened. When ready for the formal presentation by Miss Lynd, the Adjutant will bring the regiment to "Attention" and command "Officers, Center; March." *All* Officers will close to center and, at the command of the senior officer, march in line on the Reviewing Stand. Battalion Commanders and staffs will form one line; Company Officers a second line three paces in rear of first line. Senior Officer will halt Officers twelve paces from the reviewing stand. Immediately on being halted officers will render the hand salute. Color Guard will take position near reviewing stand.

The Colors will then be uncased, and the formal presentation of the regimental colors be made by Miss Lynd. The colors will be received by Major J. E. Cassidy on behalf of the regiment. The Adjutant will then command: "Officers, Post, March." As soon as the Officers have reached their posts, the Adjutant will command: "Present Arms." The colors, both National and Regimental will then be placed

in the hands of the Color Sergeants and Color Guard. Colors will be unfurled and the Color Guard marched to its place in line. "To the Colors" will be played by the Field Music beginning at the command "PRESENT ARMS" and continuing while the Color Guard is marching to its place in line.

4. When the Color Guard has taken its place in line, the Adjutant of the regiment will command: "ORDER ARMS" — Then "CLOSE RANKS, MARCH." The regiment will then pass in review according to the principles for Reviews prescribed in Infantry Drill Regulations. After passing in review, the regiment will countermarch in column of squads, and form in line of masses near the reviewing stand where an address will be delivered to the regiment. After the address, the regiment will be marched to its parade ground and dismissed.

5. Uniform will be service with blouses and russet shoes.

There will be a rehearsal of this schedule Monday afternoon, April 22, 1918. Calls on Monday will be sounded as follows:

1st Call	5.15 P.M.
Assembly	5.20 P.M.
Adjutant's Call	5.25 P.M.

By order of Major CASSIDY
H. S. PORTER
Captain, Engineers, R.C., Adjutant

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *May* 10, 1918

General Orders
No. 28

MARCH ORDER

FORMATION

I. 1. Formation for the Regiment preparatory to moving out on the tactical march Monday, May 13, 1918, will be conducted as follows:

First Call	8.15 A.M.
Assembly	8.20 A.M.
Adjutant's Call	8.25 A.M.

I. 2. Battalions are to be formed as directed by Battalion Commanders and marched so as to be reported to the Adjutant from position in column as directed in Field Orders No. 1, head of column to be facing north on the road past regimental headquarters, at a point near the main road leading past the Post Office. Rear of column of foot troops, will, if necessary, extend along main road toward Soldiers Club.

I. 3. Company E, marching as the rear company in 2d Battalion, will be the Color Company.

Uniform and Personal Equipment

II. 1. Uniform will be service, with flannel shirt. The short pack will be carried, containing 1 blanket, poncho, shelter half with pole and pins, extra socks, toilet articles, mess equipment and one cooked meal.

II. 2. Squad bundles will be made up containing extra blankets, underwear, etc., and carried on escort wagons.

II. 3. Blank ammunition will be issued and rifle cleaning materials will be taken with company baggage.

Messing and Sanitation

III. 1. The supply officer will provide for a team to draw the Rolling Kitchen, arranging to obtain the kitchen in time for it to join the column, having reference to N.A.C. Memorandum 128 c. s. Rolling Kitchen is assigned to Companies as follows:

Monday . . . . D Company and Medical Detachment
Tuesday . . . . E Company, Engineer Train, and 405th Dépôt Detachment
Wednesday. . A Company and Headquarters Detachment
Thursday . . . B Company and C Company
Friday. . . . . F Company

III. 2. The Rolling Kitchen will be used to prepare coffee for the entire command at the noon meal, all companies carrying a cooked ration in the haversack for that meal, canteen being filled before moving out each morning.

III. 3. The regular field ration will be used, supplemented by the daily issue of fresh beef and bread for one meal.

III. 4. Fuel will be carried in the Train, and no timber is to be cut without orders from the Commanding Officer.

III. 5. Regimental Surgeon will give instructions as to location and disposition of latrines and kitchen pits, designate sources and treatment of drinking water and attend to all other sanitary measures. Picket lines will be thoroughly cleaned each morning and the refuse buried or disposed of to civilians for fertilizer. Company Commanders will be held responsible for the strict observance of March and Camp Sanitation as ordered by the Surgeon.

Trains

IV. 1. Wagon and Pack Trains will be in charge of the Supply Officer.

IV. 2. Each Company will have:

1 escort wagon for commissary supplies
1 escort wagon for company baggage
4 limber and caisson tool carts
1 water cart, and will carry the regular Engineer pack equipment on pack mules. Necessary horse equipment will be carried.

IV. 3. Stable sergeants will be mounted and will march with their respective sections of the wagon train.

IV. 4. Company wagons will march in the same relative position in the train as their respective companies occupy in the column of troops.

IV. 5. The Engineer Train will furnish transportation for fuel and forage for the entire regiment.

IV. 6. Motor truck from the Supply Train will make daily deliveries of fresh beef, bread and first class mail, the latter to be distributed under direction of the Chaplain.

General

V. 1. All officers entitled to mounts under the tables of organization will be mounted.

V. 2. Morning reports and sick reports will be taken by each company and kept up as usual.

V. 3. The band will march as a unit, playing until outside the cantonment. When so ordered by the Commanding Officer, they will rejoin their respective companies, putting on their packs and equipment which will meanwhile have been carried on company baggage wagons. Instruments will then be carried on the wagons.

By order of Major Cassidy
H. S. Porter
Captain, Engrs., R.C., Adjutant

Headquarters, 301st Engineers
Camp Devens, Mass.
12 *May*, 1918 — 8.30 a.m.

Field Orders
No. 1
Maneuver Map No. 1

1. Enemy forces have been concentrated on the general line of Pittsfield — N. Adams — Bellows Falls. Raiding parties in force have appeared at Winchendon.

2. Pending completion of defense measures, the Commanding General, 76th Division, orders the 301st Engineers to proceed by road to Ashburnham and take a position of observation from which reconnaissance of enemy positions will be made. The regiment takes the field, moving out at 8.30 a.m., May 13, 1918.

(a) Advance Guard
(Capt. Waldron)
Co. D, Engineers
2 Mounted detachments
(Flank Guards)

3. (a) Advance Guard will march with and at the head of the column to *10.8–D–0.8.*, at which point it will be detached from the column, and march on Townsend *via* Paper Mill Village — Townsend Harbor to Townsend. Mounted detachments will move on parallel roads to Column and protect the flanks. Rate of march will be 2½ miles per hour. Command will march 50 minutes and rest 10 minutes each hour.

(b) Main Body
2d Bn., 301st Engrs.
1st Bn., 301st Engrs.
Hq. Det. Mtd.
(c) Flank Guard
(Right)
Lt. Ibell
Hg. Det. Mtd.
Flank Guard
(Left)
Lt. Hendrick
Hq. Det. Mtd.

(b) Main body will follow Advance Guard at a distance of 500 yards. Main body will be ready to move at 8.30 A.M., 13th May, 1918.

(c) Flank Guards will march on parallel roads to main column and rate of march will conform to Advance Guard.

4. Engineer Train, Supply Train, and Pack Train will follow the main column at a distance of 200 yards in the order named. Sanitary Detachment will follow in rear of Trains.

5. Messages will be sent to head of main body.

Issued to Bn. Commanders
Co. Commanders, C.O. Engr. Train
C.O. Advance Guard, C.O. Right and
Left Flank Guards — By Messengers.

By order of Major CASSIDY
H. S. PORTER
Captain, Engineers, R.C., Adjutant

SCHOOLS OF MILITARY ENGINEERING

Col. F. A. Pope — Director
I. Capt. R. L. Whipple — Instructor in
(a) Coördination of the Functions of all Arms

II. Capt. N. D. Dean, Instructor in
(a) Field Fortifications.
Officers' School
1st Lt. E. A. Weaver — Assistant Instructor
1st Lt. S. W. Merrill — Assistant Instructor
(b) N.C.O. School
1st Lt. M. C. Mapes — Assistant Instructor
1st Lt. C. Callaghan — Assistant Instructor
(c) Infantry Pioneer Platoons
1st Lt. M. C. Mapes — Assistant Instructor

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *March* 22, 1918

LIST OF LECTURES IN THEORY OF FIELD FORTIFICATIONS FOR THE CLASS TO BEGIN MONDAY, MARCH 25, 1918

1. The Trenches of Europe To-day.
2. The Trench Itself.
3. Study and Discussion of Fortifications in Engineer Area.
4. Trench Layout.
5. Shelters.
6. Timbering and Building the Deep Gallery Shelter (a Visit to the Engineer Trench Area).

7. The Construction of the Trench.
8. Revetments and Trench Maintenance (a Visit to the Parking Spaces).
9. Camouflage — Its Relation to the Trench.
10. The *Camoufleur* at Work.
11. Cover.
12. Obstacles — Lecture.
13. Obstacles — In the Field.
14. Tactical Use of the Trench.
15. Artillery Fire and the Trench.
16. Mining.
17. Reminiscences of the Trenches.

F. A. Pope
Colonel, Engineers, N.A.
Director

Headquarters, 301st Engineers
Camp Devens, Mass., *January* 27, 1918

LIST OF LECTURES IN COÖRDINATION OF ALL ARMS FOR THE CLASS TO BEGIN MONDAY, JANUARY 28, 1918

1. The New Warfare — the Warfare of Position.
2. Rôle and Characteristics of the Different Arms and Services in the Present War.
3. The Trench — Its Equipment and Preparation — Organization of a Position.
4. The New Armament — Hand and Rifle Grenades.
5. The New Armament — Machine Guns.
6. The New Armament — Automatic Machine Rifles.
7. The New Armament — Trench Mortars.
8. Trench Duties and Routine.
9. Importance of Artillery in the Present War.
10. The Relief.
11. The Battle Map.
12. Preparation of an Attack.
13. The Attack — Organization of the Conquered Ground.
14. Pursuit and March of Approach.
15. The Defense.
16. Battle Organization in the Medical Corps.
17. Material of Artillery.
18. Collaboration of Artillery and Infantry.
19. Liaison in General.
20. Supply.

F. A. Pope
Colonel, Engineers, N.A.
Director

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *March* 23, 1918

SCHOOL OF FIELD FORTIFICATIONS FOR NON-COMMISSIONED OFFICERS

Course of Lectures to begin March 25, 1918
Daily except Saturday and Sunday

1. The Trenches of the Present Day:
   - (a) Position Warfare.
   - (b) General Principles.
2. The Trench:
   - (a) Dimensions.
   - (b) Construction.
   - (c) Siting.
   - (d) Elements of a Position.
   - (e) The Sap.
3. * Obstacles:
   - (a) Kinds.
   - (b) Requirements.
   - (c) Construction.
4. * Revetments:
   - (a) Construction.
   - (b) Application.
5. Cover:
   - (a) Head { (Trench / (Loopholes
   - (b) Overhead.
   - (c) Machine Gun Emplacements.

EXAMINATION

6. * Deep Gallery Shelters:
   - (a) Equipment.
   - (b) Construction.
   - (c) Effect of Artillery.
7. * Mining.
8. * Camouflage.
9. Tactical use of Trench:
   - (a) Position.
   - (b) Depth.
   - (c) Trench Weapons.
   - (d) Active and Passive Sectors.
10. Field Fortifications and the Soldier.

EXAMINATION

F. A. POPE
Colonel, Engineers, N.A.
Director

* First hour, Lecture
Second hour, practical work

March 18, 1918

EXAMINATION — FIELD FORTIFICATIONS

1. (A) Give your reasons why entrenchments are necessary.
   (B) Name the essentials for any good trench.
   (C) Show the connections between the reason and the essentials.
2. Discuss provisions necessary to make trenches more effective for fighting.
3. (A) What conditions are sought in the locating of a trench.
   (B) On what part of a hill would you generally locate a 1st line trench and two reasons why.
4. (A) What is the object of having traverses.
   (B) What are the relative lengths of a firing bay and a traverse.
5. (A) What elements compose a Center of Resistance.
   (B) What is your idea of a position.
6. What would you look for in judging the effectiveness of an obstacle.
7. How are obstacles destroyed by the enemy and what measures do you take against such destruction.
8. (A) What is most important point to be observed in use of revetments. (Economy)
   (B) What revetment is most used and to what extent.
   (C) What are the purposes of revetments.
9. (A) Name 10 kinds of revetments.
   (B) What are the requirements of a revetment.
10. (A) Name the different kinds of cover and specify the different uses for each form.
    (B) What is difference between flanking and enfilade fire.

March 22, 1918

EXAMINATION—FIELD FORTIFICATIONS

2d week. Non-commissioned Officers' School

1. (a) Give 5 or more principles to be observed in connection with deep gallery shelters.
   (b) Draw a sketch showing location and detailed setting of 1st, 2d and 3d frames of a gallery using frame and sheeting method of construction.
   (c) Name Equipment to be found in D. G. shelters
2. Define: Shaft; gallery; branch; boring; charges.
3. Why is it so important to prevent movement of earth behind the timbered section of shafts and galleries.
4. (a) Name the three general principles which must be employed in concealing objects and works of military importance.
   (b) It having been decided to place a battery of large guns in position in a wooded strip of land, describe the precautions which

should be taken to conceal this position from the time work is begun upon it until it is no longer needed as a gun position.

5. (a) Give characteristics of a support line.
   (b) Name 4 principles of defenre.
   (c) What are active and passive sectors.

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *April* 27, 1918

General Orders
No. 25

1. Inspection and review of this Regiment, 301st Engineer Train and 405th Dépôt Detachment by Colonel Brown for the Inspector General will be held Sunday, April 28, 1918, on the Engineer Drill Field, "Cavalry Flats."

1st Call..... 9.30 A.M.
Assembly..... 9.35 A.M.

2. The battalions and special units will be marched independently to the Drill Field and formed in column of companies as follows:

2d Battalion — Companies F, D, and E in order
1st Battalion — Companies B, A, and C in order
Headquarters Detachment, Medical Detachment
301st Engineer Train and 405th Dépôt Detachment

Captain Warner will command the 1st Battalion. Company E will be the Color Company.

3. Full equipment will be carried, using the long pack. Uniform will be service with blouses and russet shoes. All officers will wear russet shoes and leather leggins.

4. The inspection will be conducted as provided in Par. 754, I.D.R., reference being had to Article 749 for the details of Battalion Inspection.

5. All wagons for which the regulation harness is available will be turned out and all remaining serviceable animals will be led. Transportation and led animals will be formed under the direction of the Regimental Supply Officer at the left of the Regiment. A review will follow the inspection.

By order of Major CASSIDY
A. L. SHAW
Captain, Engineers, R.C., Adjutant

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *July* 8, 1918

Memorandum:

1. Until further orders, there will be an accurate check of men present and absent at taps and reveille. The report of the check at reveille will be submitted to this office with the Morning Report, listing by name men who are A.W.O.L.

2. The following list of articles will be carried by soldier as indicated:
Pack equipment:
- Shelter half, pole, pins, rope
- 2 blankets, O.D.
- 1 suit denim, complete.
- Mess kit, complete
- 1 suit underwear
- 2 pr. socks (light wool)
- 1 flannel shirt O.D.
- Personal toilet articles:
  - Razor
  - Soaps — hand, shaving
  - Towels
  - Mirror
  - Comb
  - Brushes — hair, shaving, tooth
  - Handkerchief
- Washing soap
- 1 extra pair shoe laces
- Slicker, outside of pack
- 1 pair gloves in pocket of slicker
- Writing material if desired
- Smoking material if desired
- Reading material if desired
- Personal property
- Helmets, steel, to be carried on the person

Barrack Bag:
- 1 blanket, O.D.
- 2 bed sacks
- 1 overcoat, O.D.
- 2 pair socks (lt. wool)
- 1 breeches, wool, O.D.
- 1 blouse, wool, O.D.
- 1 suit underwear
- 1 pair shoe laces extra
- 1 pair spiral puttees
- 1 pair shoes, field
- 1 brush, shoe (1 each 8 men)
- 1 brush, clothes (1 each 8 men)
- Red Cross articles
- Personal property — smoking, writing, etc.

3. When men are transferred out of this regiment, all overseas equipment that they have in their possession that it is possible to take from them should be held. This refers to extra wool suits, gloves, toilet articles, ordnance, 1st aid packets, collar ornaments, overcoats, slickers, etc.

By order of Colonel Pope

W. R. Morse, *Captain, Engineers, N.A., Adjutant*

HEADQUARTERS, 301ST ENGINEERS
CAMP DEVENS, MASS., *June* 18, 1918

General Orders
No. 34

1. This regiment will be formed for the Review ordered by G.O. 12, Headquarters, 76th Division, Wednesday, June 19th, as follows:

1st Call	9.20 A.M.
Assembly	9.25 A.M.
Battalion Adjutant's Call	9.30 A.M.
Regimental Adjutant's Call	9.35 A.M.

2. Battalions and separate organizations will be formed in column of squads at places indicated and, after reporting to the Adjutant, will march out in the order given:

(a) Commanding Officer and Staff, — Mounted
Formed on road in front of Regimental Infirmary

(b) Headquarters Detachment, — Mounted
Formed behind Regimental Staff

(c) Regimental Band
Formed behind Headquarters Detachment

(d) 1st Battalion — Companies C, B, and A (Color Company)
Formed on road leading past Soldiers Club, head of column near Company D overflow barracks

(e) 2d Battalion — Companies F, E, and D
Formed on Dépôt Brigade road, head of column at Company D barracks

(f) Engineer Train — Medical Detachment
Formed behind 2d Battalion

3. Uniform — blouses and russet shoes. Equipment — rifles and side arms. Officers will wear leather leggins, russet shoes and side arms. Officers will be mounted as provided in Tables of Organizations.

4. Captain A. W. Waldron will command 2d Battalion.

5. 1st Lt. C. J. Kittredge will act as Liaison Officer and will report to the Division Adjutant at Officers Club at 8 A.M. for instructions.

6. Officers and men so detailed will attend Division Schools.

By order of Colonel POPE
W. R. MORSE
Captain, Engineers, N.A., Adjutant

C

(*To Part II*)

HEADQUARTERS, 301ST ENGINEERS
ON BOARD TRANSPORT KATOOMBA
July 14, 1918

General Orders
No. 38

1. Special Orders for Submarine Lookouts:

To keep a sharp lookout for anything that looks like a stick standing straight up a foot and a half or two feet above water within a mile. To keep a sharp lookout for a wake (white wash) of a submarine partly submerged. To report all suspicious objects to the Officer on the bridge. When whistles are furnished: one blast means object is on the starboard (right side of vessel), 2 blasts, object on port (left side of vessel), 3 blasts, object abaft the beam. Lookouts will be especially watchful at night.

By order of Colonel POPE
W. R. MORSE
Captain, Engineers, N.A., Adjutant

HEADQUARTERS, 301ST ENGINEERS
ON BOARD TRANSPORT KATOOMBA
July 15, 1918

Memorandum No. 57:

1. Captain Howard S. Porter is hereby appointed Police Officer and Master Engineer N. J. Devaney is appointed as his assistant.

2. Inspections this morning developed the fact a reasonable degree of cleanliness and order is not demanded and enforced by Company Commanders. To this end, it is directed that Company Police Officers be immediately appointed and their names announced to the Police Officer through regimental headquarters. Police officers will be present at their Company quarters and mess rooms at the 11 o'clock inspection. All organizations will immediately prepare placards indicating their Company bunk rooms, latrines and washrooms. The latrine on the after saloon deck will be policed by the prisoners.

3. Until further orders all officers and men will wear life belts. Company Commanders will be held responsible that men of their command obey this order implicitly. Men must not be allowed to sit on the rail or other places near the ship's side.

4. Every possible effort will be employed to reduce the consumption of water.

By order of Colonel POPE
W. R. MORSE
Captain, Engineers, N.A., Adjutant

HEADQUARTERS, 301ST ENGINEERS
ON BOARD TRANSPORT KATOOMBA
July 24, 1918

Memorandum to all Organizations:

1. Each company and detachment will prepare 4 copies of an alphabetical list of its enlisted personnel (present and absent) on standard letter sized sheets and submit 3 copies of same to these Headquarters before Taps, July 25, 1918. Each sheet will be headed "Alphabetical Roster Co. ——, 301st Engineers" or other regimental designation. Names will be arranged alphabetically, surname, Christian name and rank. Those absent on D.S. will have notation alongside name — "D.S.A.E.F." Names will be listed in single column on sheet 1 inch in from left and commencing 1 inch from top of sheet, single spaced.

By order of Colonel POPE
W. R. MORSE
Captain, Engineers, N.A., Adjutant

HEADQUARTERS, 301ST ENGINEERS
CAMP NO. 1, SECTION B, HAVRE, FRANCE
July 29, 1918

Memorandum:

Uniform: Officers — blouses and Sam Brown belts at all times with O.D. collar. Enlisted men may wear shirts.

1. When blouse is worn, shirt collar will be inside of blouse collar, and every button hook fastened.

2. All Officers, except Field Officers, quartered at the various camps in Havre, while passing through either with organizations or casuals, are forbidden to leave the camp at which they are quartered without a written pass from the Camp Office, and this will not be requested, except for urgent reasons, until they have been in camp longer than twenty-four hours. It will not then be granted to officers who are leaving camp before midnight that same night. Officers are allowed in town only between the hours of 4 and 10 P.M.

3. It has been noted that officers visiting the city on pass have been in the habit of visiting places where intoxicating liquor is sold and houses of ill-repute. This is forbidden by A.E.F. General Orders, and any officer who may be found in any of the above-named places, will have disciplinary action taken against him.

4. No officers are allowed to purchase meals in the city, at any of the hotels or restaurants.

5. Officers belonging to or attached to organizations will transact all business through their adjutant or regimental office, and not individually with Camp Headquarters.

6. All requests for passes must have the approval of the unit commander and will come through the adjutant of the unit.

7. No officers are allowed to seek quarters outside of the camp to which they are assigned.

8. Any equipment, in the way of blankets or cooking utensils, drawn from the British will be returned before the unit leaves camp. Any deficiency will be paid for before leaving.

By order of Colonel Pope
W. R. Morse
Captain, Engineers, H.A., Adjutant

Headquarters, 301st Engineers
August 2, 1916

Memorandum:

1. A route march will follow physical drill 8.15 a.m. to 11.00 a.m. Saturday morning (about 8 miles). Uniform: shirts. The inspections will be made at 1.30.

2. Officers will provide themselves with overseas caps without delay. These may be obtained in Saint-Amand. Blouse will always be worn with barrack cap.

3. Attention is invited to the fact that the salute at the closing note of the Star-Spangled Banner is only made on ship board. Men will be instructed to hold the salute throughout the playing of the National Anthem of our own and of our Allies.

By order of Colonel Pope
W. R. Morse
Captain, Engineers, N.A., Adjutant

Headquarters, 301st Engineers
A.P.O. 773, A.E.F., *August* 7, 1918

Memorandum No. 63:

1. Attention of all Organization Commanders is directed to Bulletin No. 14, Headquarters, A.E.F., requiring two field ranges, if used, to be connected and operated by one fire.

By order of Colonel Pope
W. R. Morse
Captain, Engineers, N.A., Adjutant

Headquarters, 301st Engineers, A.P.O. 773
American Expeditionary Forces, *August* 8, 1918

Memorandum No. 64:

1. All bread sacks and potato sacks should be saved and once a week returned to Regimental Supply Sergeant Curran in compliance with G.O. 20, 1918, Hq. A.E.F.

2. Blue denim will be worn by all working parties, at drill, and all the formations except ceremonies.

3. An officer in each company will be designated to handle all administrative duties under the supervision of the Company Commander as required by Bulletin No. 44, Headquarters A.E.F. The name of such officer will be reported to these Headquarters before 8 P.M., August 10, 1918.

By order of Colonel POPE
W. R. MORSE
Captain, Engineers, N.A., Adjutant

HEADQUARTERS, 301ST ENGINEERS, A.P.O. 773
AMERICAN EXPEDITIONARY FORCES, *August* 9, 1918

Memorandum No. 65:

1. There has been a complaint that men are taking straw to which they are not entitled. Organization Commanders will see that men do not fill their bed sacks promiscuously, but use straw that has been arranged for by the Billeting Officer.

2. Organization Commanders will submit without delay additional recommendations for non-commissioned officers to complete their allowance. They will also include the necessary certificate that the allowance has not been exceeded.

3. The Regimental Band will give a concert this evening at 7 P.M. at Drevant.

By order of Colonel POPE
W. R. MORSE
Captain, Engineers, N.A., Adjutant

HEADQUARTERS, 301ST ENGINEERS, A.P.O. 773
AMERICAN EXPEDITIONARY FORCES, *August* 14, 1918

Special Orders
No. 50

1. Members of this command will visit cafés only between retreat and call to quarters.

By order of Colonel POPE
W. R. MORSE
Captain, Engineers, N.A., Adjutant

HEADQUARTERS, 301ST ENGINEERS, A.P.O. 773
AMERICAN EXPEDITIONARY FORCES, *August* 19, 1918

Memorandum:

1. The course of instruction covering a period of two weeks will begin August 20th. All N.C.O.'s not immediately engaged in construction and other work or drill will regularly attend.

2. For companies A, C, F, Headquarters and Train, the sessions will be held at school house at Drevant in charge of Lieutenant Brady. For

companies B, D, and E the schools will be at places designated by the Company Commanders, who will also appoint an officer as instructor. Instruction memorandums or verbal instructions from time to time will be issued supplementing the schedule. The P.M. period will be devoted to sketching, bridges, cross-roads, hills, map features of tactical value, and use of the compass and theoretical placing of explosives.

3. Subject-matter for talks will be taken from training manual, topography, map reading and reconnaissance and new Engineer Field Notes will be distributed. It is the purpose of this course to give a series of personal instruction to senior N.C.O.'s. The study period will actually be used for study and the period for discussion to bring out such points as are not obvious. The talks will be by the officer in charge and will be of such a nature as to place additional information before the class and which is not so clearly indicated in the text. The paragraphs mentioned in the schedule are guides and those which do not directly concern the instruction may be omitted, the idea being that the ideas gained by study, by talks and by discussion should be applied in the afternoons.

4. The period scheduled for practical work will be used in splicing connections, lead wires, taping, the different kinds of wires, series, multiples and all work of a practical nature connected with explosives. For reconnaissance during this period, the use of tracing paper and cloth, rough sketching, pace scales and the use of the scales will be taken up.

5. In the afternoon small groups will be assigned under the senior N.C.O. Sketches of bridges, railroads, canal sections and buildings will be made showing where and how the explosives should be placed and character and quantity of material required. For reconnaissance the sketches in the problem will include various points and objects of military value.

By order of Lt.-Colonel WHIPPLE
W. R. MORSE
Captain, Engineers, N.A., Adjutant

HEADQUARTERS, 301ST ENGINEERS
AMERICAN EXPEDITIONARY FORCES
A.P.O. 773, *August* 21, 1918

Memorandum to all Officers:

1. The attention of all officers of the command is called to that portion of the new Engineer Field Notes (A.E.F.), as is contained in Engineer Field Notes, No. 5, setting forth the duties of Engineers in mobile warfare.

2. This should be carefully read and digested at the first opportunity. It summarizes briefly, but well, the scope of activity within which each officer may expect to find himself at some time in the not too distant future.

3. It would be well to read this chapter first before taking up the study of the details of the various other subjects.

4. Worthy of particular note are paragraphs 3, first sentence; 5, last sentence; 7; paragraph on Reconnaissance; 21; 25, with regard to location of temporary bridges; 31; 49.

5. The duties outlined are essentially those of Divisional Engineers, but any Engineer Unit, well grounded along these lines, will have fitted itself for any service in the zone of armies.

By order of Lt.-Col. WHIPPLE
W. R. MORSE
Captain, Engineers, N.A., Adjutant

HEADQUARTERS, 301ST ENGINEERS, A.P.O. 773
AMERICAN EXPEDITIONARY FORCES, *August* 23, 1918

Memorandum No. 75:

1. Pending further instructions, Engineer Officers of this regiment will omit the designation "Reserve Corps" and "National Army" as required by Bulletin 3, Hq. 3d Dépôt Division, using "301 Engineers" to designate branch of service and regiment, e.g., "John Doe, Captain, 301 Engineers."

2. Regimental Band will play at Colombier, F. Company this evening.

By Order of Colonel WHIPPLE
W. R. MORSE
Captain, 301st Engineers, Adjutant

HEADQUARTERS, 301ST ENGINEERS
AMERICAN EXPEDITIONARY FORCES
A.P.O. 773. *August* 24, 1918

Memorandum:

1. All officers and men in Cos. A and C who have not been fitted with small box respirators will report at gas house, 2 de la Rots, Colombier, at 11 A.M. Saturday, August 24, 1918 and be fitted.

2. All officers and men of Co. A will pass through gas chamber at 1 P.M. August 24, 1918.

3. All officers and men of Co. C will pass through gas at 2.30 P.M. August 24, 1918.

By order of Lt.-Col. WHIPPLE
W. R. MORSE
Captain, 301st Engineers, Adjutant

HEADQUARTERS, 301ST ENGINEERS, A.P.O. 773
AMERICAN EXPEDITIONARY FORCES, *August* 27, 1918

Memorandum:

1. Beginning Tuesday, August 27, 1918, battalion parade will replace the usual regimental parade.

2. Units will march individually onto the field and take position from right to left — companies F, C, Headquarters Detachment and Engineer Train.

3. The ceremony will be as directed in Par. 734, I.D.R.

By order of Lt.-Colonel WHIPPLE
W. R. MORSE
Captain, 301st Engineers, Adjutant

HEADQUARTERS, 301ST ENGINEERS, A.P.O. 773
AMERICAN EXPEDITIONARY FORCES, *August* 27, 1918

Memorandum 77:

1. Attention of all Organization Commanders is called to G.O. No. 33, Part I, War Department:

I. 1. In order to effect the removal of the names of Italian-born men of our Army from the Italian deserters' list and to exempt the families of such men from payment of the military tax imposed, all Organization Commanders will report promptly to the Adjutant General of the Army in cases of Italian-born men of their organizations:

(a) The commune and Province where they were born and date of birth.
(b) The military district to which they belong in Italy.
(c) The commune and Province in which their relatives are paying the military tax imposed on account of their absence from service in the Italian Army.
(d) The commune and Province in which their relatives are residing.

2. This information will be sent in duplicate.

Reports of Italian-born men were submitted May 21st and such men as have entered the regiment since that date should be reported through military channels without delay.

By order of Lt.-Colonel WHIPPLE
W. R. MORSE
Captain, 301st Engineers, Adjutant

HEADQUARTERS, 301ST ENGINEERS
AMERICAN EXPEDITIONARY FORCES
A.P.O. 773. *August* 30, 1918

Memorandum:

1. Attention of all officers is called to the necessity for constant care with regard to damage of hedges, fences, trees, brush, or any property or materials which might result from drills, problems, terrain exercises, marches or troop movements. Particularly, caution will be exercised against the breaking through or cutting of hedges. On no account must any soldier pass through a hedge, except by the gate.

2. At Drevant and Colombier, only the fields for which use is authorized, i.e., Regimental Parade and the Château Field will be used for scheduled drills.

3. For problems and terrain exercises, authorization will be obtained before occupancy of the field.

4. In practice marches, troops will not leave the highways.

By order of Lt.-Col. WHIPPLE

Copy to all companies

W. R. MORSE
Captain, 301st Engineers, Adjutant

D

(*To Part III*)

HEADQUARTERS, 301ST ENGINEERS
AMERICAN EXPEDITIONARY FORCES
10 *November*, 1918, 2 *hours*

Field Order:

To C.O., 1st Bn. 301st Engineers and the 1st Bn. 51st Pioneer Infantry.

1. Fourth Corps will advance on this front this date at 7 hours.

2. You will move your companies to a rendezvous at Vigneulles at the earliest possible moment, equipment, gas-masks and steel helmets.

All transportation in the hands of your companies will also be moved to this point, carrying tools for road repair and bridge construction.

You will leave at your present station only such men as are necessary to guard equipment left there.

Motor transportation with extra tools and rations will be sent to this rendezvous point, reporting to you.

3. At H hour you will move to the following command posts:

Company A, 301st Engineers Company C, 51st Pioneer Infantry	at Woël
Company B, 301st Engineers Company B, 51st Pioneer Infantry	at Joinville
Company C, 301st Engineers at Sponville	
Company D, 51st Pioneer Infantry at Xonville	

Company A, 51st Pioneer Inf. will be held at your P.C. at Vigneulles for such contingent work as you may deem necessary.

4. The main circulation route on which work is to commence immediately and en route to the above-named command posts is as follows: From south to north, Thiaucourt–Xammes–Charey–Saint-Julien–Chambley–Puxieux–Tronville–Vionville–Mars-la-Tour. From north to south, Suzemont–Latour–Joinville–Woël–Hattonville — (*via* Bois-des-Hudronville) — Vigneulles.

5. As soon as your companies have moved beyond our present outpost line, an officer with motor-cycle will make reconnaissances of the roads included in the main circulation route, reporting as soon as possible to the regimental command post at the château in Saint-Benoit.

You will detail one officer and three runners with the 301st Engineers whose duty it will be to report the progress of that pioneer regiment and any reconnaissance they may make.

6. In accordance with your verbal order, C company will send a platoon to repair the arch bridge between Xammes and Charey.

7. You will report to the regimental message center the exact location of your P.C. — Vigneulles.

8. It is the sense of this order that you are to be allowed liberal latitude in the distribution of the companies under your command to the end that they shall make all road and bridge repairs that conditions show to be necessary.

Sgd. R. L. Whipple
Lt.-Colonel, 301st Engrs., Comdg.

TYPICAL WORK REPORT

Location and nature of work	*Engineers*		*Infantry*	
	No. men employed	*Men days work*	*No. men employed*	*Men days work*
Co. "C."				
15 Flirey–Essey road work.....	243	243	Germans	..
16 Flirey–Essey road work.....	243	243	110	55
17 Flirey–Essey road work.....	243	243	82	82
18 Flirey–Essey road work.....	242	242	..	..
19 Flirey–Essey road work.....	241	241	..	..
20 Road work and March to Limey.	241	120	..	..
21 Ammunition dump, Limey.....	241	241	..	..
Total.....	1694	1573	192	137

RECAPITULATION

Nature of work	*Amount completed*	*Total men days work*
Trenches dug.....		
Revetment built.....	..	
Shelter excavations.....	..	
Concrete placed.....	..	..
Road work.....	Repairing (maintenance)..	Germans 137 1332 1469
Ammunition dumps.....	Grading 400 M.	241

Record of any Unusual Events:

. . . . . .

These reports were later modified in form to meet the requirements of the Fourth Corps. This modification has been taken up in the chapter

on the Second Position, as the companies began to use it for the first time when they were erecting the wire entanglements on that work.

	Number of men employed on pioneer or other productive engineering work	
	Engineer	*Infantry*
Saturday	171	
Sunday		
Monday	174	
Tuesday	174	
Wednesday	162	
Thursday	155	
Friday	153	
Average per day worked	165	

	Number of men days work	
	Engineer	*Infantry*
Job No. 1	519	
Job No. 2	470	
Total	989	

COMPANY "C," 301ST ENGINEERS
8 *November*, 1918

Memorandum:

The following table shows the amount of wire entanglement constructed by this company for week of 1st to 8th of November, inclusive:

No. 1. *Week ending 8th Nov.*

TABLE SHOWING AMOUNT OF ENTANGLEMENT COMPLETED

No. of bays of wire	*Map coördinates*	*Square meters*
Four	Shown in red ink 62.175–36.00	5776
Two	62.30 –35.95 62.70 –35.40	924
One	63.55 –34.70	2,760
Total square meters completed this week		9,460
Total " " " last "		18,982 (and previous to that time)
Total " " " to date		28,442

Note: One bay wire is represented on the Navette in one-line pencil, two bay wire in two-line pencil marks.

THE ARTILLERY AMMUNITION DUMPS

Inasmuch as both "A" and "C" Companies completed an ammunition dump very similar in plan; and following the same underlying prin-

ciples, it is interesting to add to the comments on the subject above, Appendix 3 of the Historical File of Headquarters, dated the 3d of November.

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OCTOBER, 1918, OPERATION REPORT

Ammunition Dumps

In connection with the work done by this regiment in building Artillery Ammunition Dumps, some explanation may be of interest and possible value.

The length, approximately 400 meters, was thought necessary to localize an explosion and the distance between the 60 cm. and the plank roads was established at about fifty feet as being a distance not too great to carry and pile the ammunition and to keep the necessary clearing inconspicuous.

This regiment did nothing in the way of laying out locations for the various sizes of ammunition, merely bringing to the site duck boards on which the ammunition could be piled.

The powder and fuse houses are, of course, widely separated. It appears to be good practice to keep fixed ammunition by itself. The powder and fuse houses are merely light framed structures roofed and sided with corrugated iron with a floor of duck boards or rough plank, high enough to be dry.

The concealment of a dump of this design can be done very effectually if it is not necessary to build approaches through open ground, as was the case at the Flirey Dump. The very minimum amount of cutting of brush and trees should be done and all large trees should be left intact. Wherever practicable the branches should be arched over the road and 60 cm. Decauville and tied together with wire. Where this cannot be done the conventional types of flat top camouflage should be used.

At the Flirey Dump an attempt was made to camouflage the plank roads running in and out of the woods and for this two separate screens were created. Aerial photographs made it perfectly evident that this is a waste of time and material. One large screen covering both the entrance and exit might have been useful.

The attached prints will give some data concerning the amount of labor in man days, required to build this type of ammunition dump. The conditions under which the work was done might be said to be average condition in the field but a great deal of time was wasted through lack of materials.

. . . . . .

The general plan of the dumps is better understood from the reproductions of the Topographical Office (See Appendix I). The first being,

as indicated, the dump constructed by Company "A" and the second by Company "C." As the work on the dumps progressed, weekly reports were submitted to show the amount of labor involved and the nature of the work and its location.

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E

(*To Part IV*)

HEADQUARTERS 1ST BATTALION, 301ST ENGINEERS
AMERICAN EXPOSITION FORCES, FRANCE
17 *November*, 1918, 19 *hours*

Field Order No. 1 } Map: Metz 11/200,000

1. This command will enter upon its forward march 18 November, 1918. It will proceed by road to Hannonville, Saulx, Riaville, Paroid, Saint-Jean, Mouaville to Fléville where it will billet for the night. The column will consist of 1st Battalion, 301st Engineers and the 1st Battalion, 51st Pioneer Infantry.

2. The order of march will be Company "C," 301st Engineers, Company "A" (which will join the column at Paroid), and Company "B." The 1st Battalion, 51st Pioneer Infantry will follow. The 3d Battalion, Pioneer Infantry will follow from Hannonville.

3. Company "C" will move out at 4 A.M., and will furnish the advance guard, the other units will proceed immediately afterward.

4. The formation will be in column of squads, until otherwise ordered. The proper distance between platoons will be maintained, as also in the case of vehicles. The rules of march discipline as set down in F.S.R. will be followed.

By order of Major DEAN
ELWIN S. WARNER
Captain, Engineers, Adjutant

Copies to:
Major Harris
Cos. "A," "B," "C."

HEADQUARTERS, 1ST BATTALION, 301ST ENGINEERS
AMERICAN EXPEDITIONARY FORCES, FRANCE
21 *November*, 1918, 7 *hours*

Field Order No. 2 } Map: Metz–Longwy 1:80,000

1. In accordance with Field Order No. 71, 4th Corps, this Battalion will leave Fléville at 8.15 A.M., to-day, 21 November, 1918, and will march to Anoux. At this point it will join the regiment, where it will march in a column to Fontoy *via* Mancieulles, Tuequégnieux, Trieux.

2. Companies will march in column of squads and by platoons with an interval of 20 paces between platoons and 50 paces between companies. Commanding Officers and Platoon Commanders will march in the rear and to the left of their columns, in order to keep them closed

up and the road on the left open. The Battalion Commander will be notified in case men are forced to fall out of the column. All officers will march with their units, and riding horses will be turned in to the Commanding Officer of the Regimental Train.

3. Rolling equipment and riding horses will leave Fléville at 8.30 A.M. and will march to Lubey and from there to Fontoy *via* Lantefontaine from cross-roads just west of Briey, Mancieulles, Tucquégnieux and Trieux. The animal drawn transportation will form at Lubey, with that of the 1st Battalion leading.

4. 1st Lieut. A. E. McDonald will be in command of all Regimental animal transportation.

5. Motor transportation of the 1st Battalion will assemble at Ozérailles, where they will report to the Supply Officer, 301st Engineers.

6. The order of march will be Company "A," Company "C," and Company "B": Company "A" will furnish the advance guard.

By order of Major DEAN
ELWIN S. WARNER
Captain, Engineers, Adjutant

Copies to:
Cos. "A," "B," and "C."

EXTRACT

2. On 17 November, Headquarters, with all personnel and transportation, left Bernécourt in the first forward movement of the regiment as a unit in the "Army of Occupation," marching under Field Orders No. 66, Headquarters Fourth Corps. The equipment of the regiment was in all essentials complete. The Pioneer Regiments (details in paragraphs on individual companies), for the purpose of assisting these regiments in any road repairs that might be found necessary to expedite the passage of the Fourth Corps across the German lines.

3. After completion of these duties they proceeded by the most convenient routes to the "Corps roads" over which the Corps troops were to advance. The two battalions marched on separate roads until 21 November, when the entire regiment and train came together at Anoux, since when it has proceeded as an undivided regimental column. . . .

4. On the 17th and 18th great difficulties were encountered on account of the rough and soft roads and by reason of the weakness of the animals, many of which were freshly discharged from veterinary hospitals and none of them being accustomed to working together. Careful handling and assistance of men pulling on ropes through the worst mud holes overcame all difficulties and the two days rest, 19 and 20 November, put all animals into shape to continue the march over excellent roads.

5. The column crossed the line into Alsace-Lorraine on 21 November at 12.45 hours, north of Trieux, receiving an ovation in the first village,

Lommeringen, the regiment being addressed by the town officials and showered with flowers. On 23 November at 10.20 hours, the Grand Duchy of Luxembourg was entered without demonstration, by the road Euringen-Frisange, the regiment ending its day's march at Bous. Billets in this town were occupied the remainder of the month awaiting orders for advance across the German Border, the time being spent in cleaning, renewing and inspecting equipment, and in disciplinary drills.

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Headquarters, 301st Engineers
American Expeditionary Forces
1 *January*, 1919

Extract

Report of Operations for Month of December, 1918

1. The 301st Engineers and 301st Engineer Train have been for the entire month of December with the 3d Army (Army of Occupation), as Corps Engineers, 4th Corps. Leaving Bous, Luxembourg, where the regiment had been stationed since 23 November, the march was continued as indicated in Appendices 1 a and 1 b, semi-permanent station being taken at Brohl-am-Rhein, the total distance being covered in 14 actual marching days. The longest march undertaken without pause was on the five consecutive days from Saturday, 7 December, to Wednesday, 11 December inclusive, during which time 125 kilometers from Olewig (near Trier), to Boppard (on the Rhine) were covered. Brohl was reached on 18 December. Between Bernécourt, France, and Brohl-am-Rhein, the total distance covered by this regiment was 327½ kilometers, from 17 November to 18 December.

2. As indicated in the following paragraphs, certain companies and detachments have, from time to time, been detailed away from Headquarters to guard railroad structures on the line from Ruhwer-Paulin to Coblenz, *via* Simmern and Boppard. A total of 83 bridges and large culverts and 7 tunnels were guarded, and the entire line was frequently patrolled to forestall the possibility of disastrous demolition by fanatics or others. Since 14 December, one company has been detached to operate and maintain a ponton bridge between Carden and Treis, on the Moselle. It has been necessary to open the bridge once daily to permit the passage of vessels. A brief report on the principal problems met is attached as Appendix 3.

3. From 19 December the development of Brohl as a semi-permanent Headquarters has been undertaken. An 8-target rifle range (100, 200 and 300 yards) and a delousing plant have been constructed and training schedules and programmes of schools for officers and non-commissioned officers have been adopted. Engineers soldiers with experience have been installed as operators on the local German telephone switch board

to facilitate communication with Corps Headquarters and other military units, there being no Signal detachment with this regiment.

4. Company "A" accompanied Headquarters on the march until Simmern was reached on 10 December. At this point, the company was detached and was assigned to guard a section of railroad from Morbach to Kastellaun. They were relieved from this duty on 16 December, rejoining the regiment at Boppard. On 28 December, having accompanied Headquarters to Brohl, Company "A" was again detached and took station at Carden, relieving "C" Company in the operation and maintenance of the ponton bridge across the Moselle at that place. Rifle range construction, near Brohl, was carried on by this company on 23, 24 and 26 December, after which "D" Company took over the work.

5. Company "B," having marched with the regiment as far as Simmern, was there detached for guard duty on the railroad between Kastellaun and Ehr, establishing a company P.C. at Pfalzfeld. Relief from this duty came on 16 December and the company rejoined the regiment at Boppard, marching with it to Brohl.

6. Company "C" was with the regiment on the march until Boppard was reached. This company established guards on the railroad between Boppard and Coblenz from 12 December until relieved on 14 December. On 14 December, one platoon went by truck to Carden to take over the operation and maintenance of a ponton bridge across the Moselle between Carden and Treis, being followed by the entire company on 15 December when it became apparent that the rising river and heavy traffic demands made a larger force necessary. "C" Company was relieved by "A" Company on 28 December, and rejoined the regiment at Brohl on that date.

7. Company "D" was with Headquarters throughout the march to Brohl. While in Boppard, this company furnished guards on the railroad between Ehr and Boppard from 12 to 14 December inclusive. The rifle range near Brohl, started by "A" Company before its assignment to the Carden–Treis ponton bridge, was taken over by "D" Company on 27 December and completed 31 December.

8. Company "E" was detached from the regiment, which it had hitherto accompanied, at Olewig on 6 December, marching to Rheinsfeld and Morbach, establishing P.C. at the latter place on 7 December, and placing guards on the railroad from Morbach to Rheinsfeld. The company was relieved by troops from the 7th Corps on 23 December and moved to Brohl by rail on 24 December, rejoining the regiment.

9. Company "F" was with Headquarters until detached, at Olewig on 6 December, marching to Rheinsfeld where P.C. was established and the guarding of the railroad from Rheinsfeld to Ruhwer-Paulin undertaken. Having been relieved by French troops on 16 December, this company rejoined the regiment at Brohl, making the trip by rail and arriving at Brohl on 17 December, one day ahead of Headquarters.

10. Headquarters detachment and 301st Engineer Train have been with the main body throughout the month.

HEADQUARTERS 1ST BATTALION, 301ST ENGINEERS
BROHL, GERMANY, 19 *January*, 1919

TERRAIN EXERCISE FOR JANUARY 20, 1919

It is assumed that companies C and B and Engineer Train, in command of Captain H. J. Betterley, are engaged as engineers in the repair of the road through and on both sides of Ober-Lutzingen. The command is working in hostile territory and the men will be disposed accordingly. They will be grouped and placed in charge of non-coms as in actual practice.

At some distance from the town a small working party (near Hill 261) will be engaged on bridge work.

It is expected that raids may occur, at which the entire command will be assembled and Ober-Lutzingen defended.

The command will arrive at Ober-Lutzingen by 10.30 A.M., and send out working parties. Eight machine guns are allotted.

By order of Colonel P.
A. P. S.
Captain, Engineers, Adjutant

Copies to:
Lt.-Colonel Whipple
Major Pease
Captain Betterley
Captain Warner
Captain Waldron }
Captain Hussey } Umpires
Captain Hendrick }

PROBLEM

HEADQUARTERS 18TH ENGINEERS
ANDERNACH, GERMANY
8 *January* 1919, 8 A.M.

Field Order No. 8:
Map: Andernach und Umgegend
Scale 1:80,000.

1. The enemy is attacking Brohl, which he intends to occupy. His advance elements are approaching rapidly toward Ober-Lutzingen.

2. The command will establish a line of defense across the plateau between Neider-Lutzingen and Schloss Brohleck, push out such patrols as are necessary but no outposts will extend north of north limits of Neider-Lutzingen. It will engage the enemy upon his arrival and break his attack.

3. The troops under command of Captain H. J. Betterley will consist

of Companies C, B, Engineer Train and two platoons, 103d Machine Gun Battalion.

4. Liaison will be by motor-cycle and telephone.

5. Regimental P.C. will be at Hotel Schaifer, Andernach.

By order of Colonel M.
K. F. B.
Captain, Engineers, Adjutant

By messenger to:
Lt.-Colonel Whipple
Major Dean
Major Pease
Captain Warner
Captain Waldron
Captain Betterley

PROBLEM

HEADQUARTERS 2D ENGINEERS
WEHR, 20 *February*, 1 A.M.

Field Order No. 2:
Map: Burgbrohl
3213

1. The enemy has sent forward strong patrols to reconnoiter plateau above Schloss Brohleck. Advance patrols have already reached and established themselves between Neider-Lutzingen and Brohl.

2. This command will form two flanking detachments which will establish a junction, cut enemy line and clear plateau.

3. (a) Company B in command of Capt. Hendrick will proceed *via* Schweppenburg to Ober-Lutzingen arriving at 2.30 P.M. Company A in command of Lieut. Weaver will reach Ober-Lutzingen *via* Rheineck, at 2.30 P.M. At this point the command will pass over to Capt. Hendrick. The ground will be cleared by means of platoon waves at 5 meter intervals, which will advance rapidly to Brohl, taking as many prisoners as possible.

(b) 4 machine guns will be alloted each detachment.

4. Messages will be received at Church Brohl after 1 P.M.

By order of Col. F.
A. P. C.
Capt. Adjutant

By messenger to:
Colonel Whipple
Major Pease
Captain Warner
Captain Hendrick
Captain Waldron
Captain Hussey
Captain Betterley
Lieutenant Weaver

F

LETTERS OF COMMENDATION

HEADQUARTERS IV ARMY CORPS
September 17, 1918

General Orders
No. 8

The Corps Commander takes great pride in repeating the following telegram received by him from the Commander-in-Chief of the American Expeditionary Forces:

"Please accept my sincere congratulations on the successful and important part taken by the officers and men of the IV Corps in the first offensive of the First American Army on September 12th and 13th. The courageous dash and vigor of our troops has thrilled our countrymen and evoked the enthusiasm of our Allies. Please convey to your command my heartfelt appreciation of their splendid work. I am proud of you all. — Pershing."

By command of Major-General DICKMAN

STUART HEINTZELMAN
Chief of Staff

Official:
PHILIP L. SCHUYLER
Corps Adjutant

ARMY OF OCCUPATION, THIRD U.S. ARMY
OFFICE OF CHIEF OF STAFF
COBLENZ, GERMANY
March 19, 1919

From: Chief of Staff, Third Army, American E.F.
To: Commanding General, Fourth Corps, American E.F.
Subject: Commendation

1. The Army Commander directs me to congratulate the Commanding General of the Fourth Corps on the condition and appearance of the Fourth Corps troops and the Third and Fourth Divisions during the recent inspections by the Commander-in-Chief.

2. The condition of the troops is the direct reflection of the intelligent work they have done in training and instruction in spite of adverse conditions since the arrival in their present area.

By command of Major-General DICKMAN

MALIN CRAIG
Brigadier-General, U.S.A.
Chief of Staff

1st Ind.

HEADQUARTERS IV ARMY CORPS, A.E.F.
March 23, 1919

1. Official copy furnished to the C.O., 301st Engineers.

2. The Corps Commander directs me to inform you that it gives him great pleasure to transmit to you the congratulations of the Army Commander and to say that he was himself most favorably impressed with the appearance of your organization at the inspection by the Commander-in-Chief.

B. H. WELLS, *Chief of Staff*

ARMY OF OCCUPATION, THIRD U.S. ARMY
OFFICE CHIEF ENGINEERS, *April* 17, 1919

From: Chief Engineer, Third United States Army
To: Chief Engineer, Fourth Corps
Subject: Return of Companies "A" and "E," 301st Engrs.

1. The assignment of the 115th Engineers to this Army makes it possible to recommend the return of the two companies of the 301st Engineers which have been attached to this Headquarters as Army troops.

2. Captains Kelly and Trott and the entire personnel of their companies deserve credit for the efficient and satisfactory way in which they have handled the duties assigned to them in connection with the considerable construction programme under this office.

3. Captain Weaver has handled the Remagen project, under difficulties, in a most able manner.

4. The cordial coöperation of yourself, Colonel Whipple, and assistants, is deeply appreciated.

W. P. WOOTEN
Colonel, Corps of Engineers, U.S.A.
Chief Engineer

1st Ind.

OFFICE CHIEF ENGINEER, IV CORPS
18 *April*, 1919

To Commanding Officer, 301st Engineers

1. Forwarded for his information and for retention.

ROBERT R. RALSTON
Colonel, Engineers, U.S.A.
Corps Engineer

2d Ind.

HEADQUARTERS, 301ST ENGINEERS, A.E.F.
April 20, 1919

To Commanding Officer, Company E, 301st Engineers, American E.F., for information of all ranks

By order of Lt.-Colonel WHIPPLE
A. S. SHAW
Captain, Engineers, Adjutant

American Expeditionary Forces
Office of Chief Engineer
28 *April*, 1919

From: The Chief Engineer, American E. F.
To: The Commanding Officer, 301st Engineers, American E. F.
Subject: Historical-Technical Report

1. It is desired to acknowledge receipt of your bound history and Appendix 3, in duplicate, and in doing so, to express appreciation of the most exceptionally well presented Historical-Technical Report thus far received from any Engineer regiment. The amplitude and arrangement of the material, the artistic and technical excellence of the illustrations, the admirable phraseology of the text and the attractive binding are all, and equally, matters of commendation and congratulation.

By command of Major-General Langfitt
E. A. Kane
Captain, Engineers, Adjutant

Headquarters IV Army Corps
American Expeditionary Forces, Germany
16 *May*, 1919

From: Commanding General, IV Army Corps
To: Commanding Officer, 301st Engineers
Subject: Appreciation of Services

1. The IV Army Corps having been dissolved by orders from higher authority, I take this opportunity to express my appreciation to the Commanding Officer and men of the 301st Engineers for the excellence of their work throughout the time they were a part of the IV Army Corps, both during the period of hostilities and after the signing of the Armistice.

2. This organization joined the IV Army Corps in September, 1918, and since that time set a high standard of military efficiency reflecting great credit not only upon the organization but upon the service at large. In the years to come the Commanding Officer and the members of this organization can look back with pride upon their record of service, which merits the highest praise.

C. P. Summerall
Major-General, U.S.A.

1st Ind.

Headquarters, 301st Engineers, American E. F., May 18, 1919 — To Commanding Officers, Companies A, B, C, D, E, F, Headquarters Detachment and Engineer Train

1. It is directed that you read this letter to the men of your command at formation for Retreat on Monday, 19 May, 1919, and that this copy be posted on your company bulletin board. The Regimental Commander

desires to express to all ranks his sincere appreciation of the work and spirit which prompted this commendation from the Corps Commander.

2. It is hoped that there will be no relaxation in the efforts to make this regiment one of the best. Let us go out of the service with the same earnest determination to give the Army the best that is in us.

By order of Lt.-Colonel WHIPPLE
E. J. WEAVER
Captain, Engineers, Actg. Adjutant

May 16, 1919

From: Office Chief Engineer, Third U.S. Army
To: Lt.-Colonel R. L. Whipple, 301st Engineers
Subject: Services of "E" and "A" Companies, 301st Engrs.

1. Upon the occasion of the relief of Companies "E" and "A" of your regiment, from duties under this office, I desire to express my appreciation of the excellent service which they rendered here. Practically all of their work was conducted under difficult conditions of contact with the native officials and much of it was required to be done on short notice and with inadequate preparation. In spite of all these difficulties, the services of these two companies were in a high degree satisfactory, and it is with genuine regret that I see them leave our service. I desire especially to commend the services of Captain Kelly, Captain Trott, Lieutenant Cherry and Lieutenant Bowler. The service of these officers was distinguished by a spirit of loyalty of coöperation which is the highest attribute of any military subordinate.

2. While I did not come into close personal contact with the other officers of these two companies, the records made by the two organizations are sufficient proof that they were administered by loyal and efficient officers. I congratulate you on having such a high grade of personnel in your regiment.

J. W. STEWART
Lt.-Colonel, Corps of Engineers
Executive Officer

HEADQUARTERS IV ARMY CORPS
AMERICAN EXPEDITIONARY FORCES, GERMANY
17 *May*, 1919

From: Commanding General, IV Army Corps
To: Lt.-Col. Robert L. Whipple, Commandant, IV Corps Vocational Schools, Brohl
Subject: Services with the IV Corps

1. In view of the closing of the IV Corps Schools, incident to the breaking up of this Corps, I desire to express my thanks and appreciation for your loyal support and devotion to duty as Commandant of the IV Corps Vocational School at Brohl, Germany.

2. The educational program of the A.E.F. has been a successful inovation in the Army. I hope that the knowledge of the fact that you and the officers associated with you were in a large measure responsible for the initial success of this program may be a source of keen satisfaction in years to come.

C. P. Summerall
Major-General, U.S.A.

Trèves, Germany, *May* 23, 1919

My dear Colonel Whipple:

. . . . . .

I doubt very much if I will have an opportunity to see you or your officers again and I am taking this opportunity to express my appreciation of the hearty coöperation and support you and your officers have always given the Chief Engineer of the Fourth Corps.

We have always felt that whenever a task was assigned to your regiment that we could wipe it off the slate and not worry about it any longer.

Please convey to all your officers my thanks and best wishes for a quick and prosperous journey home and with the same to yourself, believe me,

Very sincerely yours
Robert R. Ralston
Colonel, Engineers

Headquarters IV Army Corps
American Expeditionary Forces, Germany
May 26, 1919

General Orders
No. 10

Upon the approaching demobilization of the IV Corps, it will become necessary for the undersigned to relinquish the command that he has had the honor to exercise.

Since the organization of the IV Corps, June 20th, 1918, it has performed a distinguished part in operations of the American Expeditionary Forces. For several months it conducted the training of a large number of divisions before their entrance into the sector. It was then charged with the principal attack in the reduction of the Saint-Mihiel salient and its success may well be characterized as brilliant. During the succeeding period of the campaign it held a difficult sector and was finally given an important mission in the proposed advance against Metz. After the Armistice, it had the honor of forming a part of the Army of Occupation. During the march into Germany and while holding a part of the occupied area, it has performed every task in a most creditable manner. The Staff has functioned as a well organized machine and both the Corps Troops and the Divisions that have been attached to it have merited and received high commendation.

The Corps Commander wishes to convey his deep appreciation to the officers, soldiers, field clerks and the members of the Aid Societies for the loyalty, zeal and efficiency that they have manifested and that have made possible the achievements of the Corps. It is desired to make especial acknowledgment of the highly efficient service rendered by Brigadier-General Briant H. Wells, Chief of Staff, and the Chiefs of the sections and services who have borne with distinguished ability the principal burdens in the administration and the operations of the Corps.

The good wishes and the abiding interest of the Corps Commander will accompany all members of the command in their future fields of usefulness.

C. P. Summerall
Major-General, U.S.A.

Official:
S. D. Beatty
Acting Adjutant

1 *June*, 1919

Colonel Robert L. Whipple
301st Engineers
A.P.O. 775

My dear Colonel:

The work of the American Expeditionary Forces in France is nearing completion, and I desire to express my appreciation of the loyal and energetic manner in which you performed the duties imposed upon you.

Your regiment joined the IV Army Corps on the eve of the Saint-Mihiel offensive and on the day of the offensive you undertook the difficult task of preparing important roads for the forward movement of traffic over the old trench systems. The work and your subsequent work of road repair, preparation of second position and general construction in connection with the organization of the captured ground in this sector showed constant application and skill. You are especially to be commended for the prompt and energetic manner in which you made your dispositions for the offensive of 10th and 11th of November, 1919.

W. C. Langfitt
Major-General, Engineers
Chief Engineer, A.E.F.

Hdqrs. Demobilization Group
Camp Devens, Mass., *June* 20, 1919

Colonel Robert L. Whipple
301st Engineers
Camp Devens, Mass.

My dear Colonel Whipple:

I am taking this opportunity to congratulate you upon the excellency of your organization, as indicated by their conduct since arriving at Camp Devens for demobilization.

Every assistance possible has been given in the many details required during the work of mustering out. The paper work has been uniformly satisfactory, and the usual administration and policing have been carried on in an excellent manner.

It is a pleasure to be associated with such organizations as the 301st Engineers, and I feel that their conduct since arriving at Camp Devens has reflected credit to the service.

Yours very sincerely

PALMER E. PIERCE
Lieut.-Colonel, Inf., U.S.A.

G

LIST OF OFFICERS RETURNING TO THE UNITED STATES WITH THE REGIMENT

Colonel Robert L. Whipple	Commanding	Captain	4/16/17
			5/26/17
		Major	3/27/18
			3/29/18
		Lt.-Col.	7/10/18
		Colonel	5/24/19
Lt.-Colonel Norman D. Dean	Staff	Captain	8/8/17
			8/15/17
		Major	6/6/18
		Lt.-Col.	5/24/19
Major Elwin S. Warner	Comdg. 2d Bn.	1st Lieut.	5/26/17
		Captain	8/10/17
		Major	3/21/19
Captain Arthur L. Shaw	Regtl. Adjt.	Captain	6/11/17
			6/28/17
Captain Walter R. Morse	Personnel Adj.	1st. Lieut.	6/19/17
			7/11/17
		Captain	1/8/18
			1/21/18
Captain Eric G. Benedict	Adj. 2d Bn.	1st Lieut.	4/16/17
			5/26/17
		Captain	3/27/18
Captain Charles J. Kittredge	Supply Officer	1st Lieut.	8/15/17
			8/15/17
		Captain	1/18/18
Captain Ernest J. Weaver	Adj. 1st Bn.	1st Lieut.	8/15/17
			8/15/17
		Captain	3/4/19
			3/10/19
1st Lieut. John A. Root	Topo. Officer	2d Lieut.	8/15/17
		1st Lieut.	1/8/18
			1/21/18
1st Lieut. Royal A. Simonds	Chaplain	1st Lieut.	7/31/18
			8/21/18

COMPANY "A"

Captain Edgar P. Trott	Commanding	Captain	8/10/17
			8/15/17
1st Lieut. John E. Turgeon		2d Lieut.	5/16/17
			6/21/17
		1st Lieut.	3/27/18
			3/29/18

2d Lieut. Everett R. Wilkinson		2d Lieut.	5/16/18
2d Lieut. Edward H. Wisser		2d Lieut.	7/2/17
			9/2/17
2d Lieut. Edwin D. Wolf		2d Lieut.	4/26/19
2d Lieut. Charles H. Harrington		2d Lieut.	5/7/19
2d Lieut. Frederick L. Chatterton		2d Lieut.	5/7/19

Company "B"

Captain Wallace M. Hendrick	Commanding	1st Lieut.	9/19/17
			9/30/17
		Captain	6/15/18
1st Lieut. Robert L. Carroll		2d Lieut.	12/31/17
		1st Lieut.	7/20/18
1st Lieut. Frederick N. Billingsley		2d Lieut.	3/13/18
			3/18/18
		1st Lieut.	11/1/18
1st Lieut. Otto N. Rugen		2d Lieut.	6/17/18
		1st Lieut.	11/1/18
2d Lieut. Harry R. Noel		2d Lieut.	9/30/18
2d Lieut. John R. Lauper		2d Lieut.	5/13/19
2d Lieut. Karl D. Sabin		2d Lieut.	5/7/19

Company "C"

Captain H. J. Betterley	Commanding	Captain	7/16/17
1st Lieut. Daniel H. B. Starr		1st Lieut.	8/15/17
1st Lieut. Walter D. Lomax		1st Lieut.	10/13/17
1st Lieut. Charles J. Lawson		2d Lieut.	10/2/18
		1st Lieut.	5/10/19
2d Lieut. Gavin W. Laurie		2d Lieut.	10/1/18
2d Lieut. Berkley H. Snow		2d Lieut.	7/9/18
2d Lieut. John P. Cyr			

Company "D"

Captain Cedric Powers	Commanding	1st Lieut.	8/15/17
		Captain	6/6/18
1st Lieut. Bradley W. Bartholomew		2d Lieut.	6/23/17
			7/9/17
		1st Lieut.	5/14/18
1st Lieut. George C. Eldridge		2d Lieut.	3/18/18
			3/22/18
		1st Lieut.	5/16/19
2d Lieut. Henry Anderson		2d Lieut.	9/25/18
2d Lieut. Daniel F. McKinnon		2d Lieut.	4/27/19
2d Lieut. Hebert W. Mueller		2d Lieut.	4/22/19
2d Lieut. Charles R. Johnson		2d Lieut.	4/8/19
			4/18/19

Company "E"

Captain Edward F. Kelly	Commanding	1st Lieut.	8/15/17
		Captain	11/1/18
1st Lieut. Arthur E. McDonald		2d Lieut.	6/28/17
			7/14/17
		1st Lieut.	3/25/18
			3/27/18
1st Lieut. Alan G. Cherry		2d Lieut.	12/31/17
			1/16/18
		1st Lieut.	6/15/18
1st Lieut. Ray O. Delano		2d Lieut.	3/29/18
			4/1/18
		1st Lieut.	5/15/19
2d Lieut. Francis G. Tatnall		2d Lieut.	6/17/18
			6/22/18
2d Lieut. Frederick T. Alden		2d Lieut.	5/13/19
2d Lieut. Mark D. Cronan			

Company "F"

Captain William F. Hussey	Commanding	Captain	5/5/17
			5/26/17
1st Lieut. Richard D. Braman		2d Lieut.	7/2/17
			7/13/17
		1st Lieut.	7/17/18
1st Lieut. Clayton B. Waite		2d Lieut.	3/13/18
			3/18/18
		1st Lieut.	11/1/18
1st Lieut. Joseph W. Begley		2d Lieut.	5/27/18
			6/5/18
		1st Lieut.	3/4/19
1st Lieut. Robert A. D. Mackay		2d Lieut.	9/25/18
		1st Lieut.	5/15/19
2d Lieut. Richard V. Gay		2d Lieut.	4/28/19

Headquarters Detachment

1st Lieut. Joseph F. V. Brady	Commanding	2d Lieut.	4/16/17
		1st Lieut.	1/16/18
			1/17/18
2d Lieut. Norman A. Whittum		2d Lieut.	4/21/19
2d Lieut. Martin	Band Leader	2d Lieut.	8/30/18

301st Engineer Train

1st Lieut. Ralph K. Reynolds	Commanding	2d Lieut.	6/23/17
			7/9/17
		1st Lieut.	6/14/18
2d Lieut. Eugene A. Welch		2d Lieut.	6/19/17

Medical Detachment

1st Lieut. Jay L. Touchstone. M.C.	Commanding	1st Lieut.	8/21/17
1st Lieut. Chester H. Tannebring. D.C.		1st Lieut.	6/25/17
1st Lieut. John R. Quinn. D.C.		1st Lieut.	8/30/17

H

OFFICERS HAVING SERVED WITH THE REGIMENT

Colonel Francis A. Pope	Transferred	To Command 315th Engineers
Lt.-Colonel Frederick B. Downing	Transferred	To Command 109th Engineers Camp Cody, New Mexico
Major H. F. Cameron	Transferred	Major 8/15/17 Camp Lee, Va. Engr. School
2d Lieut. Neil J. Cheshire	Transferred	2d Lieut. 4/12/18 Transferred 302d Engineers, 9/23/18
2d Lieut. Joseph M. Cunningham	Transferred	2d Lieut. 3/29/18 4/1/18 Transferred 302d Engineers 9/22/18
1st Lieut. Edward F. Deacon	Resigned	2d Lieut. 8/15/17 1st Lieut. 6/12/18 Resigned
Capt. John J. Devlin	Transferred	1st Lieut. 6/28/17 7/14/17 Captain Transferred to 2d Army Headquarters 11/24/18
Major Edward C. Greene	Transferred	Captain 6/13/17 Major 3/23/18 Transferred to Camp Infirmary No. 1, 3d Depot Division 8/23/18
2d Lieut. Richard W. Ibell	Deceased	2d Lieut. 3/13/18 3/18/18 Died 10/24/18 at U.S. Army Base Hospital No. 51 Buried 10/25/18 Grave No. 666, Cemetery Justice Hospital, Toul, France
Major Richard M. Lawton	Transferred	Service in the A.E.F.
1st Lieut. Milton C. Mapes	Resigned	1st Lieut. 9/15/17 Resigned
Capt. Stanley W. Merrill	Transferred	1st Lieut. 8/15/17 Captain 7/2/18 Transferred 2d Army Hq. 10/23/18
2d Lieut. Frank E. O'Brien	Transferred	2d Lieut. 4/1/18 Transferred to 302d Engrs. 9/22/18

1st Lieut. James R. Patterson	Resigned	2d Lieut. 8/15/17 1st Lieut. 6/11/18 Resigned
Major Howard S. Porter	Transferred	Captain 8/8/17 Major 7/20/18 Transferred Army Schools 10/28/18
1st Lieut. Louis A. Ramsay	Transferred	1st Lieut. Chaplain 10/30/17 11/4/17 Transferred 113th Inf. 11/3/18
2d Lieut. Walter Ruppel	Transferred	2d Lieut. 6/18/18
Major James E. Cassidy	Transferred	Major 12/11/17 Lt.-Colonel, 317th Engineers
Major Maurice H. Pease	Resigned	Captain 8/15/17 Major Resigned

I

DEATHS IN THE A.E.F.

	Date of Death	*Place of Burial*
Headquarters Detachment		
Lieutenant Richard W. Ibell	24 October 1918	Toul, France
Master Engr., Jr. Gr., William J. Bennett	25 September 1918	Toul, France
Ord. Sergt. Rodney D. Brown	27 October 1918	Toul, France
Wagoner James W. Donovan	8 December 1918	Hetherath, Germany
Company "A"		
Sergeant Patrick R. Casey	3 December 1918	Esch, Germany
Corporal Theodore F. Haussler	4 December 1918	Evacuation Hosp. No. 18
Private Robert G. Sears	2 December 1918	Esch, Germany
Private Leroy Gainey	20 December 1918	Kaisersesch, Germany
Private Fred Waring	5 December 1918	Evacuation Hosp. No. 18
Private John J. Crowley	10 December 1918	Trèves, Germany
Private Joseph Benoit	14 December 1918	Trèves, Germany
Private Victor J. Lamothe	18 December 1918	Trèves, Germany
Company "B"		
Wagoner Frank T. McAuliffe	14 December 1918	Simmern, Germany
Private, 1st Class, John L. Durkin	15 December 1918	Trèves, Germany
Private Halvia Hoyt	11 December 1918	Trèves, Germany
Private Daniel C. Gale	12 December 1918	Trèves, Germany
Company "C"		
Private, 1st Class, Albert Ayotte	1 December 1918	Toul, France
Private, 1st Class, Emile A. Frechette	10 December 1918	Trèves, Germany
Private Patrick J. Kelley	12 December 1918	Trèves, Germany
Private Erald Harmon	14 December 1918	Trèves, Germany
Private Jason S. Draper	20 December 1918	Cochem, Germany
Company "D"		
Sergt., 1st Class, William C. Scott	28 May 1919	Verdun, France
Company "E"		
Cook Eugene A. La Forest	Unknown	Unknown
Private Joseph Brown	"	"
Private Willie H. Cobb	"	"
Private John J. Flaherty	24 December 1918	Brohl-am-Rhein, Germany

	Date of Death	*Place of Burial*
Private, 1st Class, George H. Martin	Unknown	Unknown
Private Louis E. Otto	"	"
Private Edward J. Donovan	"	"
Private Arthur L. Plant	"	"
Private Giovanni Scopel	"	"
Company "F"		
Private Everett Tefft	9 October 1918	Mont Sec, France
Cook Louis L. Pieraccini	9 October 1918	Evacuation Hosp. No. 1

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